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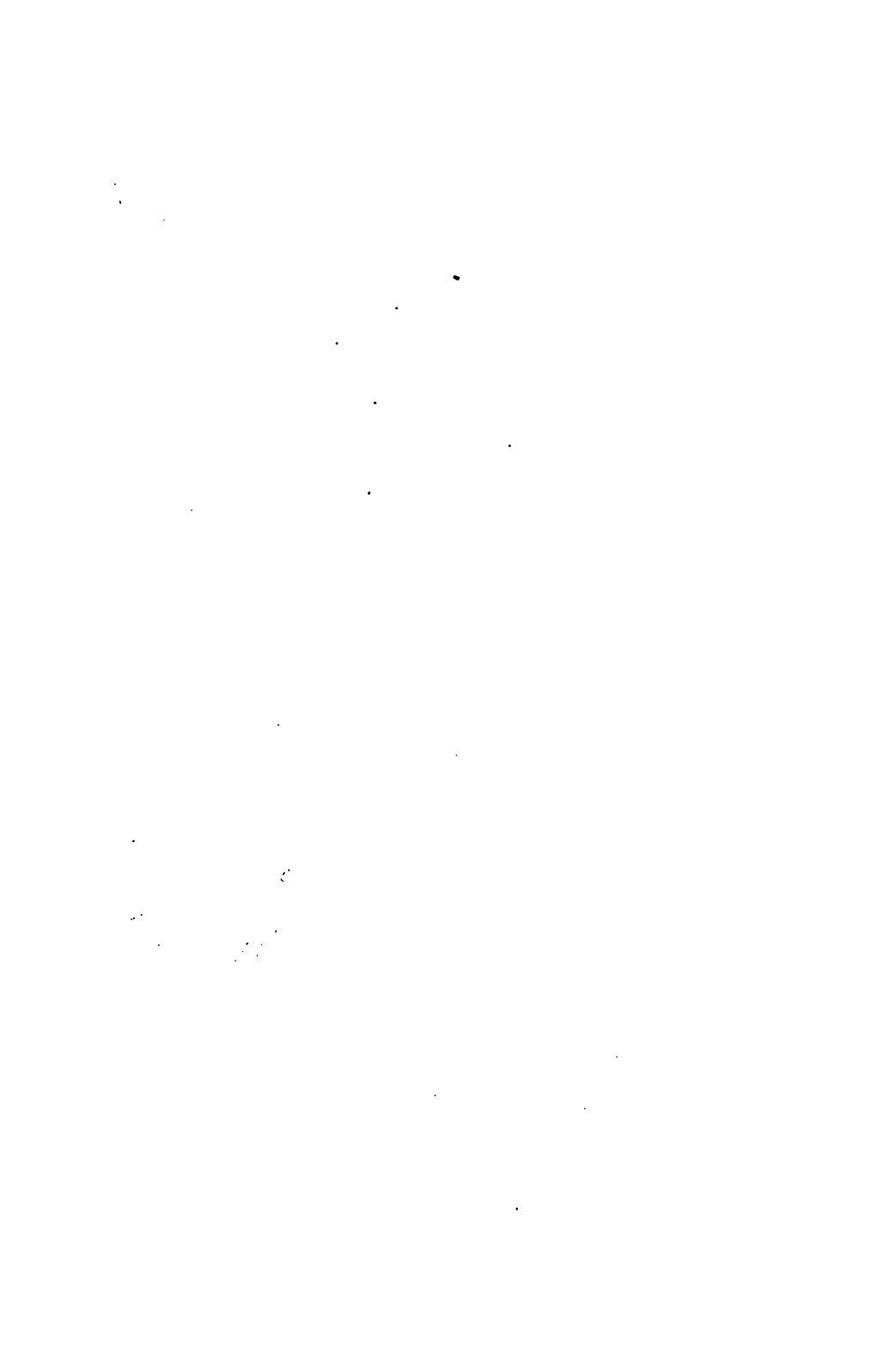
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LEPIDOPTERIST'S
CALENDAR.







THE
LEPIDOPTERIST'S
CALENDAR:

GIVING THE TIME
WHEN THE BRITISH LEPIDOPTERA APPEAR
IN THE
EGG, LARVAL, PUPAL, AND IMAGO STATES;
WITH
THE FOOD-PLANT, AND HABITAT.

BY

JOSEPH MERRIN,

(AUTHOR OF "BUTTERFLYING WITH THE POETS," ETC.)

—♦—
SECOND EDITION

ENLARGED AND CORRECTED TO THE PRESENT TIME



—
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INTRODUCTION.

(FROM THE FIRST EDITION.)

To know how to do a thing is a great step towards its accomplishment; but to know exactly *when* to do it, is often the one thing needful to insure success. The regularity with which, at certain definite dates, most species of Butterflies and Moths ordinarily appear, is something almost marvellous; and many species are not obtained in fine condition through inattention to the time of their advent, while some may be missed altogether. Although every care has been taken in giving the dates of appearance, it is evident that some allowance must be made for the difference of locality, for our variable climate, and for other causes, which militate against an unerring accuracy being always attainable. The time given for the **Imagos** includes the earliest at which they appear, in ordinary seasons, so that the Collector may be able to secure them in the best condition. It is hoped that the notes under most of the months will be found to contain some useful hints; and that the **CALENDAR**, altogether, will prove a useful **TIME-GUIDE** to the Lepidopterist throughout the year.

INTRODUCTION

TO THE SECOND EDITION.

The study of Butterflies and Moths (Lepidoptera, or scale-winged insects), has been much more generally pursued in this country, than that of any other order of the class *Insecta*. Most of the large towns in England contain one or more students of this attractive order, who take a commendable pride in increasing and improving their collections of specimens ; while in many of our largest centres of population societies have been established to advance the science of Entomology, and increase the number of its students.

Under the encouragement of Government the study of Science generally has, of late years, been immensely extended. The preference largely given to the Physical Sciences, over the Natural Sciences, is doubtless due to the practical mode in which physics have been taught ; while the devotees of Nature have been offered little else than theory, as derivable from books. Field Botany, Field Geology, or Field Entomology has, to a large degree, had to be pursued by individual students, at their own discretion, unaided by that light of experiment and demonstration, which, in the hands of good, practical teachers, has so effectively helped forward the student of Physical Science. This is an omission which ought to be supplied, as the pursuit of Field Studies would be an immense benefit to the sedentary populations of our large cities and towns.

The favourable reception accorded to the First Edition of **THE LEPIDOPTERIST'S CALENDAR** proved that it supplied, however imperfectly, a want that was really felt. The present Edition has been re-cast, re-written, and considerably extended. While largely adding details regarding various species, the Author believes he has carried out several improvements, which

will make the Work both of wider scope, and of easier reference. The arrangement carried out (Doubleday's), is that which is now generally adopted in this country. The number of new species added to our Lists since the publication of the First Edition of the CALENDAR, in 1860, is considerable, and affords a striking proof of the intelligent energy which has been exercised in working out the Lepidoptera. This fact, coupled with the great increase which has taken place in our knowledge regarding a large number of species, rendered a NEW EDITION of the CALENDAR desirable, independent of the fact of its having been for some time out of print, and still in considerable request.

In a work of this kind, which is mainly made up of recorded observation, the great aim of the Author has been to indicate the leading points of what is known of the British Lepidoptera, in all their stages, and to record how they behave *in a state of nature*, rather than under the artificial treatment of the breeder, with a view to finding the species desired, with the smallest expenditure of time and trouble. While breeding insects from the egg is an admirable method of gaining insight into the habits of some species, which could not otherwise be obtained, and especially for the initial steps where the food-plant and habits are wholly unknown, it often has its drawbacks in hiding from view habits pursued in a state of nature, to obtain food, evade enemies, and other important points which pertain to the life-history of the species. Breeding has a legitimate function to perform, in helping to enlighten us as to the occult habits of many species; but to continue the process year after year with the same species, simply for the sake of obtaining "fine specimens" for cabinet exhibition and exchange, is not true science. No one ever heard of a botanist gathering seeds of a rare plant, and imitating the natural conditions in his own garden, and then offering the products of his industry in exchange for other plants he has not been able to obtain. One of the evil results of this system has been that (many rare or local species having been thus secured) no effort is made to obtain a knowledge of their habits in a state of nature, simply because the "blank" their absence caused in the cabinet has been filled up, and we know what the species can be got to eat, and how it behaves in the captivity of the breeding-cage.

In collecting the many details set forth in the CALENDAR, the Author has received important aid from several Entomologists,

including Mr. Charles G. Barrett, Mr. J. B. Hodgkinson, Mr. J. Sang, M. Ragonot, Mr. H. Marsden, Mr. G. T. Porritt, Mr. R. Mitford, Rev. H. Harpur Crewe, Mr. Howard Vaughan, Rev. B. Smith, and others, to all of whom he desires to express his grateful acknowledgments.

With respect to the plan of the CALENDAR, it may be explained that under each month of the year is given the species, as they appear, as

OVA, or Eggs ;
LARVÆ, or Caterpillars ;
PUPÆ, or Chrysalides ; and as
IMAGOS, or perfect Insects ;

With the Plant, or Material upon which they may be found ; or the kind of Hiding-place, or Habitat, in which they are most frequently met with. Where no peculiar habitat could be tabulated, in the case of the Tortrices and the Tinae, some of the more noted localities are mentioned. The Lists of Ova, as well as of Pupæ, might have been enlarged ; but only those species have been notified about which something definite can be stated. It is only chiefly those Larvæ which hibernate that have had the earlier period of the larval condition noted, in order that the full term of its duration may be indicated. In most other cases the period of approaching maturity only has been given.

After the work open to the Collector, each month, has been thus set forth,

A List of British Lepidoptera,

WITH THE TIMES OF THEIR APPEARANCE.

follows, the months being indicated by Roman numerals. The life of an Insect, in its various stages, can thus be seen at a glance ; while details pertaining to each species will be found specified under the month which is given in the body of the Book, thus rendering a paged Index unnecessary. So few of the smaller species being mentioned as Ova and PUPÆ, they are omitted from the LIST, the Larvæ and Imagos only being

given.

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Explanation of Abbreviations.

In order to save space, a few abbreviations have been used in the Monthly Lists. They are as follow :—

s.	Sometimes ; that the species is not constant in appearing at the time indicated
r.	Root ; that the species is found at the root of the plant mentioned
sub.	Subterranean ; that the species pupates in the earth
fl.	Flower, or flowers
♂	Male
♀	Female
L	Light
b.	Beginning of a month
m.	About the middle of a month
e.	Towards the end of a month
var.	Variety
N.	North
S.	South
E.	East
W.	West
2	Second appearance, or second brood
3	Third, ditto
h.	Hibernates, or hibernation

Corrections and Additions.

P. 35, for the title *Larvæ* on the top of this p. read *Pupa*.

" 53, near the bottom of the second column *dele* B. uliginosana.

" 99, line 8, *dele* B. uliginosana.

" 115, line 21, for B. uliginosana, read D. Lorquiniana.

Add to the hibernating larvæ appearing in the spring months : N. genistella, from Sept., in a web, among furze.

Add to p. 93, after " fraxinata : " extensaria, a large and rare Eupethecia, reported by Mr. Prest, of York, to have been taken, by Mr Sawyer, on some waste ground near Hull, about the middle of the summer of 1873.

. A few typographical errors in the names will be found in the body of the Book, but they have been corrected in the LIST.

The Lepidopterist's Calendar

JANUARY

OVA]

Beyond a continuation of the winter's work of searching for pupæ, &c., which will be found specified under the months best adapted for *commencing* it, the Lepidopterist will not find much to do in the way of out-door occupation this month. Now is the time to ramble into fresh districts, with the view of discovering new localities, the character of which may often be judged of by the trees, herbage, and general appearance, although no insect-life be stirring. With a view to future reference, the result of such visits should not fail to be recorded in the Entomological Diary, which no one engaged in the study should omit to keep.

While egg-searching may be carried on at those times when little or nothing is stirring in the insect-world, and

“The banks that wore a smiling green,
With rank defilement overspread,
Bewail their flowery beauties, dead,”

the occupation will have its advantage in sometimes rewarding the searcher with a large batch of perhaps some “good” species, besides furnishing him with a knowledge of the habits of many previously unknown. A collection of eggs of Lepidoptera, preserved upon the objects on which they have been laid, would be very interesting. Insect eggs are, of course, generally laid upon, or near the food of the future larva; and therefore the localities where known species occur should be more especially chosen for the work of searching.

Although many eggs are laid late in the spring, or during the summer, soon after the imagoes emerge, the eggs of several autumnal species, as well as of many which do not pair until the spring, may be found during the early months of the year, by careful searching. Unless the eyesight is very good, it is desirable for the searcher to call in optical aid in the shape of spectacles, by which he would be enabled to clearly see a minute object like the egg of a lepidopteron at a distance of one or two feet. His chances of success will be thus very much increased. Bright or sunny days should be chosen by preference for egg hunting. By exercise the eye will become rapidly accustomed to this kind of work, and proportionate success may be expected. Many species, particularly some of the bombyces, begin to lay almost immediately after they emerge. Other kinds, notably some of the butterflies,

OVA]

JANUARY

postpone the season of pairing and laying until they have well-nigh worn themselves ragged and bare. A knowledge of these facts will, of course, aid the searcher in his discovery of eggs. Much time may be saved by hitting upon the right time when, and the right place where, to look for certain species, resulting from actual observation, or reasonable deduction.

Many other species besides those named in the lists given in the Calendar, whose larvæ arrive at maturity towards the end of May, may be found during this and the next two months, by searching the twigs, shoots, &c., of trees and bushes.

- | | |
|---|--|
| T. <i>quercus</i> .....on oak | H. <i>pennaria</i> .....on oak |
| " <i>w-album</i> .....on wytch elm | F. <i>pinetaria</i> .....on bilberry |
| " <i>pruni</i> .....on sloe | H. <i>aurantaria</i> ...on oak, birch, haw-thorn, &c. |
| L. <i>Aegon</i> .....on <i>Ornithopus per-pusillus</i> ; white | " <i>defolalaria</i> .....on oak, nut, sloe, hawthorn, birch, elm, lime, &c. |
| H. <i>comma</i> .....on trefoil, and other Leguminosæ | C. <i>brumata</i> .....on oak, and other trees |
| L. <i>dispar</i> .. ....on trunks of sloe, hawthorn, and fruit trees; in a conical heap, covered with down | " <i>boreata</i> .....on birch |
| " <i>monacha</i> .....on oak, beech, birch, fir, apple, &c. | O. <i>dilutata</i> on oak, and other trees |
| T. <i>crataegi</i>.....on hawthorn; also s. sloe, sallow, birch, oak | " <i>filigrammaria</i> on sallow |
| P. <i>populi</i> .....on oak, poplar, lime, ash, hawthorn | E. <i>subciliata</i> ...on maple; at foot-stalk of leaf |
| B. <i>neustria</i> .....on hawthorn, sloe, orchard trees; in batches spirally round twigs and branches | M. <i>ruginata</i> ...on alder; large |
| " <i>castrensis</i> on <i>Artemesia maritima</i> , <i>Daucus maritimus</i> , &c. | S. <i>vetulata</i> .....on buckthorn |
| E. <i>vespertaria</i> .. on nut | C. <i>immanata</i> ...probably on alder, and other trees, and strawberry, bilberry, &c.; large |
| " <i>apicaria</i> .....on poplar, willow, sallow | " <i>prunata</i> .....on currant, and gooseberry; upon the bark; large |
| C. <i>elinguaria</i> ...on oak, honeysuckle, hawthorn, sloe; also heath, berry, &c.; brick-shaped, large, purplish slate colour | " <i>testata</i> .....on heath, birch, sallow, poplar, &c.; singly, large |
| E. <i>alniaria</i> .....on alder, birch, sallow, beech, &c.; brick-shaped, like all the <i>Ennomos</i> | " <i>populata</i> .....on bilberry, whortleberry; globular, large, yellow |
| " <i>tiliaria</i> .....on oak, sallow, birch, alder, &c.; purplish | " <i>fulvata</i> .....on dog rose; rose pink, large |
| " <i>fuscataria</i> ...on ash, privet; upon the twigs, in small batches | " <i>pyraliata</i> .....on <i>Galium</i> , and hawthorn; large |
| " <i>erosaria</i> .....on oak, birch, &c. | " <i>dotata</i> .....black, and red currant; large |
| " <i>angularia</i> .....on oak, birch, beech, &c. | E. <i>cervinaria</i> ...on mallow |
| | " <i>lineolata</i> .....on <i>Galium</i> |
| | C. <i>spartiata</i> .....on broom |
| | T. <i>chærophyllata</i> on <i>Bunium flexuosum</i> |
| | P. <i>Cassinea</i> .....on oak |

OVA]**JANUARY**

- | | |
|--|--|
| P. plumigera ...on maple, chiefly on
the twigs, in hedges not shaded
by trees. Often singly, but s.
in clusters of two, three, or
many more. Circular, smooth,
brown above, whitish beneath | P. chion dock, hawthorn,
sallow ; and probably lettuce,
sow thistle, "tea tree," &c. ;
purplish brown |
| G. flavago.....on marsh thistles,
burdock, &c. ; in heaps | " flavocincta ...on dock, chickweed,
groundsel, mint, &c. ; in gar-
dens on everlasting pea, plum,
&c. |
| O. lotaon willows, & sallow | H. proboscidalis on nettle ; rather
large, globular, (slightly oval)
indented on upper side ; pale
yellow |
| T. subtusa.....on poplar; upon the
twigs | |
| " retusasallow, willow, pop-
lar ; upon the axils of the leaves | |

LARVÆ]

The following are among the larvæ which may be found this month :—

- | | |
|---|--|
| L. lithargyria ...chickweed, plantain,
grasses, &c. | E. gallicolana ...oak apple galls |
| A. sauciafrom Nov., plantain,
dock, and other low plants | C. cosmophorana bark of spruce and
Scotch fir |
| P. meticulosa ...from Nov., ground-
sel, and various low plants | R. resinanain twigs of Scotch
fir; and it is said in the resinous
exudation |
| S. anomalagrass, in open parts
of woods | N. aurellabramble ; may be
found almost throughout the
year, mining bramble leaves |
| P. farellaAnthyllis vulneraria;
may be found hibernating in
balls of sand during the winter | S. corollanashoots of aspen |
| E. elutellanuts, cocoa nibs,
figs, dog biscuit, &c. | D. tanacetana (?) tansy |
| " ficella .....figs | A. Schreibersiana bark of elm |
| " artemesiella . Artemesia vulgaris,
and A. absinthium ; through
the winter inside the r. stalks | " senianain r. of ragwort |
| M. cephalonica...from Nov., dried
currants, &c. | C. Dipoltana ...seeds of Achillea
millefolium |
| P. gentiana .....teazle heads | T. rusticella .....on cloth, &c. |
| O. antiquana ...Stachys arvensis, r. | CE. pseudo-spretella in dried peas, &c. |
| | E. fenestrella ...all the year round ;
on waste substances in houses |
| | B. grandipennella furze |

Besides the above there are a large number of other larvæ which have hibernated. These, however, will be found specified under the next, and following months, by which time their food-plants are beginning to be obtainable.

If the winter is a very mild one, some of the species set out under February and March may be found this month, and some portion of the work falling due in those months may now be performed.

PUPÆ]

JANUARY

Pupæ hunting this month, with the thermometer down, and "the wind's low stave" exercising its depressing effect, is likely to be rather trying work. In the list which is appended the species which are to be found in the early part of the winter are repeated, in order that the full amount of work to be done in this department may be seen, and that that which has not been sufficiently attended to before the winter set in, may be looked after as opportunity offers.

- | | |
|---|---|
| P. Machaonon stems of Peucedanum palustre ; in fens | A. prodromaria sub., at oak, elm, &c.
" betulariasub., at oak, elm,
birch, and other trees |
| P. brassicæ... } on palings, walls,
" rapæ } &c.
" napi } | H. abruptaria ...spun up, on twigs,
&c., of lilac, rose, or privet |
| A. cardamines ...on stems of grass, &c. | T. consonaria ...under moss, at r. of
beech, oak, birch |
| S. ocellatussub. at willows, poplars, &c. | T. crepuscularia under moss, on alder,
birch, elm, poplar, willow ; or
in bark crevices |
| " populisub. at poplars, willow, &c. | " biundularia ...spun up, on oak,
and birch |
| " tiliæsub. at elm, lime,
beech | " punctulata ...under moss, on
birch and alder ; or in bark
crevices |
| C. ligniperda ...at various trees ;
spun up, under bark, &c. ; but
s. burries | I. lacteariaspun up, among
leaves of oak, and birch |
| L. ascellusspun up, on a leaf | E. poratafastened to leaf of
oak |
| A. mendicaunder moss, on trees
bordering ditches | " punctariafastened to leaf of
oak, or birch |
| " lubricepeda } spun up, on trees,
" menthrasti } palings, &c. | " trilineraria ...fastened to leaf of
beech |
| " urticæunder moss, on trees | " pendularia ...fastened to leaf of
birch |
| O. pudibunda ...in dead leaves,
under moss, &c. | E. hepaticaamong moss, &c.,
on alder |
| E. lanestriscocoon on the
ground, near hawthorn, sloe,
&c. ; s. remains in pupa many
years | C. exanthemaria spun up, under
leaves of sallow, and alder |
| E. versicolora ...spun up, at birch | M. liturataat larch, rarely with-
in 2 ft. of the tree |
| S. carpinicocoon amongst
leaves, heath, &c. | N. pulveraria ...in withered sallow
leaves |
| E. dolobraria ...under moss, on oak,
&c. | F. carbonaria ...among dead leaves
of sallow, and birch |
| S. illunariasub., at willow, oak,
&c. | " piniariaat Scotch fir, and
larch ; in open places in woods,
rarely within 2 ft. of the tree,
at 1½ to 2 in. deep |
| " lunariaat sloe, oak, nut, &c. | H. rupicaparia in a slight web, on
the ground, among hawthorn,
sloe, or oak |
| O. bidentataunder moss, on
various trees | |
| N. zonariasub., at sandhills,
on the coast | |
| " hispidaria .....at oak | |
| B. hirtariasub., at elm, lime,
ash, and fruit trees | |

PUPÆ]

JANUARY

- H. leucophearia* on the ground, near oaks
 " *progemmaria* sub., at oak, birch, hornbeam, &c.
 " *desfoliaria* ... sub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
A. æscularia sub., at elm, oak, lime, sloe, hawthorn
L. multistrigaria sub., about *Galium*
E. albulata within the spun-up sepals of yellow rattle
 " *decolorata* ... about *Lychnis dioica*
E. venosata about *Silene*, and *Lychnis*
 " *consignata* ... probably under moss, & loose bark, in apple orchards
 " *pulchellata* ... among the seeds, and dead fl. of foxglove
 " *isogrammata* about *Clematis vitalba*
 " *fraxinata* on ash, under moss, and loose bark
 " *vulgata* sub., about various plants, and trees
 " *minutata* about heath
 " *assimilata*..... in crevices about currant and hop
 " *exiguata* about oak, &c.
M. occellata among *Galium*; spun up, near the ground
M. substristata } sub., near *Galium galiata*
 " *sinuata*..... in earthen cocoon, on the ground among *Galium*
 " *badiata*.. in earthen cocoon, on the ground, beneath dog rose bushes
 " *derivata* sub., at dog rose
C. sagittata spun up, among *Thalictrum*, or on the ground near; in fens
E. lineolata cocoon attached to *Galium verum*, under the surface, on coast sandhills
D. bicuspis spun up, on birch trunks in the south; alder in the north; rarely above 2 ft. from the ground
 " *furcula* spun up, on trunk of willow, or sallow
- D. bifida* spun up, on trunk of poplars
 " *vinula* spun up, on trunk of willows, poplars, and sallow; three or four feet from the ground
S. fagi spun up, among leaves of beech, oak, birch, elm; s. at r.
P. bucephala ... sub., at various trees
C. curtula... spun up, between dead leaves of poplars, & sallow
 " *reclusa*..... spun up, among dead leaves of sallow, poplars, willow
P. palpina at willows, and poplars, on edges of streams, or under sods near
N. camelina sub., at various trees
 " *sycullina* sub., at maple, and sycamore
 " *carmelita* sub., at birch
 " *dictæa* at poplars, and willows, or under sods near
 " *dictæoides* ... sub., at birch
 " *dromedarius* sub., at birch, alder, nut
 " *zizzac* sub., at poplars, sallow, willows
 " *trepida* sub., at oak
 " *Chaonia* sub., at oak
 " *Dodonea* sub., at oak, and birch
T. batis..... near bramble, and wild raspberry
C. duplaris between united birch leaves
 " *fluctuosa* among birch leaves
 " *flavicornis* ... between united birch leaves
D. Orion at birch and oak, in a cocoon of gnawed bark, or rotten wood
A. tridens..... spun up, in crevices of bark, at hawthorn, sloe, rose, willow, sallow, mountain ash
 " *psi* in bark crevices of various trees
 " *leporina* in excavations in the bark of birch, poplar, alder, sallow

PUPÆ]

JANUARY

- A. aceris spun up, among fallen leaves, and under loose bark of sycamore, horse chestnut, maple, birch, and s. oak [poplar]
 " megacephala under loose bark of
 " strigosa among dead leaves of hawthorn, or rubbish, or decayed wood ; s. sub.
 " alni between leaves of various trees, or inside bramble sticks
 " ligustri spun up, under moss, stones, &c., near ash, and privet; also sub.; also found under the topstones of walls against the tree
 A. rumicis spun up, in crevices of trees, palings, walls, &c.
 A. putris sub. at elm
 D. pinastri in a cocoon, on the ground, among dock, sorrel, &c.
 X. conspicillaris sub., at elm, and other trees
 M. albicolon sub., near Atriplex, Chenopodium, lettuce, &c.
 C. Morpheus ... spun up, in a leaf, or earthen cocoon attached to food-plant [feræ, grass, &c.
 A. segetum, s. sub., among Cruciferae
 T. piniperda at Scotch, and other firs, in open places in fir woods, and on the margin, in crevices of bark ; and under moss and fallen needles, rarely within 2 ft. of the tree, 1½ to 2 in. deep
 T. gothica sub., at various trees
 " leucographa } at r. of low plants
 " rubricosa } at r. of various trees
 " instabilis } at r. of Rosa spinosissima, and dwarf sallow ; on sandhills in the north, below the sand
 " opima at r. of Rosa spinosissima, and dwarf sallow ; on sandhills in the north, below the sand
 " populeti sub., at poplars, especially *Populus nigra* ; deep
 " gracilis sub., at willows, sallows, and low plants [&c.
 " miniosa among fallen leaves,
 " munda under moss, at base of oaks
 T. cruda sub., at oak
 D. carpophaga sub., near Silene and Lychnis, on the coast ; found by raking sandhills
 " caesia } sub., about Silene
 " capsophilus } maritima, on the coast
 " capsincola sub., near Lychnis
 H. serena sub., near *Sonchus*, and lettuce
 " glauca sub., near sallow, and birch
 " oleracea sub., near elm, nettle, dock, &c. ; also in kitchen gardens
 " thallassina sub., near honeysuckle, sallow, broom, &c.
 X. lithoriza near honeysuckle, in a papery cocoon, on the ground
 C. verbasci sub., in earthen coon, near mullein and figwort
 " scrophulariae } s. 2 years in pupa
 " lychnitidis in earthen cocoon, near white and black mullein ; s. 2 years in pupa
 " asteris near golden rod, &c. ; s. 2 years in pupa
 " gnaphalii near golden rod
 " umbratica sub., near *Sonchus*, &c.
 H. marginata sub., near *Ononis procurrens*
 " dipsacea among melilot, and probably *Silene otites*, and *Linaria*
 A. myrtilli spun up, in heath
 E. venustula at r. of *Tomentilla reptans*, and grass
 B. argentula among grass, on the ground
 B. parthenias at birch, in crevices of bark, or on the ground
 A. urticae spun up, among nettle leaves
 " triplasia spun up, among nettle leaves, hop, &c. [garis
 P. ænea among *Polygala vulgaris*
 E. sambucalis spun up, in crevices, in palings, walls, &c., near elder
 G. canella among *Salsola kali*

IMAGOS]**JANUARY**

The following species emerge this month :—

- | | | |
|---|---|---|
| <i>P. pilosaria</i>♂ comes to l.; ♀ on tree trunks, &c. | <i>H. leucophearia</i> ...♂ often flies by day; ♀ hides on oak trunks [round hedges at dusk | <i>E. fenestrella</i> ...in houses all the year |
|---|---|---|

The following, with several other species, hibernate, and may be found in this and succeeding months, up to May or June :—

- | | |
|--|--|
| <i>G. rhamni</i> .....in and near woods | <i>A. saucia</i> .....this species has been taken this month and also in Mar., April, July, Aug., Sept., and Oct. |
| on sunny days | |
| <i>C. Edusa</i> .....at rest in hollow trees, outhouses, &c. | |
| " <i>Hyale</i> | <i>C. vaccinii</i> |
| <i>V. c-album</i> ... } " <i>urticæ</i> | " <i>spadicea</i> |
| " <i>polychloros</i> } at rest in outhouses, | " <i>erythrocephala</i> |
| " <i>Antiopa</i> ... } &c., and s. flying | <i>S. satellitia</i> |
| " <i>Io</i> } about on sunny days | <i>D. rubiginea</i> |
| " <i>Atalanta</i> ... } days | <i>H. croceago</i> |
| " <i>cardui</i> | <i>D. templi</i> .....under stone heaps in elevated districts; one or two moths may s. be obtained by turning over a ton of stones ! |
| <i>M. stellatarum</i> ...from Sept., s. flying in the sunshine | <i>C. vetusta</i> |
| <i>E. fasciaria</i> ... } may be beaten from | " <i>exoleta</i> |
| <i>T. variata</i> } Scotch fir | <i>X. conformis</i> ... |
| <i>C. fluviata</i> | " <i>rhizolitha</i> |
| <i>S. dubitata</i> .....comes to light | " <i>semibrunnea</i> |
| <i>C. psitticata</i> ... } in hollow trees, out- | " <i>petrificata</i> ... |
| " <i>mata</i> } houses, &c. | <i>G. libatrix</i> .....in cellars, and hollow trees |
| " <i>silacea</i> ... } | <i>H. rostralis</i> .....in gardens, and out-houses |
| <i>A. auricoma</i> | <i>E. ocellea</i> .....comes to l. |
| <i>L. lithargyria?</i> | |
| <i>A. puta</i> | |
| " <i>suffusa</i> | |

FEBRUARY

OVÆ]

Some of the bright days which sometimes occur during this month, when apparently,

“Winter storms have ceased to chide,”

will be found particularly suitable for egg searching, as it will generally be yet too early to do much with larvæ, or imagos. The eggs obtainable last month, and which still remain unhatched, are repeated under this, and succeeding months, until they hatch ; so that the work to be done in this department can be clearly seen.

- | | | | |
|--------------------|---|--------------------|--|
| T. quercus | on oak | E. fuscantaria ... | on ash, privet; upon
the twigs, in small batches |
| " w-album..... | on wytch elm | " erosaria | on oak, birch, &c. |
| " pruni | on sloe | " angularia | on oak, birch, beech,
&c. |
| L. Ågon | on Ornithopus per-
pusillus; white | H. pennaria | on oak |
| H. comma | on trefoil, and other
Leguminosæ | F. pinetaria ... | ...on bilberry [sloe |
| L. dispar | on trunks of sloe,
hawthorn, and various fruit
trees; in a conical heap, covered
with down | H. rupicapraria | on oak, hawthorn,
" aurantiaria... on oak, birch, haw-
thorn, &c. |
| " monacha | on oak, beech, birch,
fir, apple, &c. | " defoliaria | on oak, nut, sloe,
hawthorn, birch, elm, lime, &c. |
| T. cratægi | on hawthorn; also s.
sloe, sallow, birch, oak | C. brumata ... | ..on oak, and other
trees |
| P. populi | on oak, poplar, lime,
ash, hawthorn | " boreata | on birch |
| B. neutria | on hawthorn, sloe,
orchard trees; in batches spi-
rally round twigs and branches | O. dilutata | on oak, and other
trees |
| " castrensis | on Artemesia mari-
tima, Daucus maritimus, &c. | " filigrammaria, | on sallow |
| E. vespertaria ... | on nut | E. subciliata ... | on maple; at foot-
stalk of leaf |
| " apiciaria | on poplar, willow,
sallow | M. rubiginata ... | on alder; large |
| C. elinguaria..... | on oak, honeysuckle,
hawthorn, sloe; also heath, bil-
berry, &c.; brick-shaped, large,
purplish slate colour | S. velutata | on buckthorn |
| E. alnaria | on alder, birch, sal-
low, beech, &c.; brick-shaped,
like all the Ennomos | C. immanata ... | probably on alder,
and other trees, and strawberry,
bilberry, &c.; large |
| " tiliaria | on oak, sallow, birch,
alder, &c.; purplish | " prunata | on currant, and
gooseberry; upon the bark; large |
| | | " testata | on heath, birch, sal-
low, poplar, &c.; singly, large |
| | | " populata | on poplar, bilberry,
whortleberry; globular, large,
yellow |
| | | " fulvata | on dog rose; rose-
pink, large |

OVA]

FEBRUARY

- C. pyraliataon Galium, haw-thorn ; large
 " dotataon black, and red currant ; large
 E. cervinaria.....on mallow
 C. spartiateon broom
 T. chærophylata...on Bunium flexuosum
 P. Cassineaon oak
 P. plumigeraon maple, chiefly on the twigs, in hedges not shaded by trees. Often singly, but s. in clusters of two, three, or many more. Circular, smooth, brown above, whitish beneath
 G. flavagoon stems of marsh thistles, burdock, &c. ; in heaps
- O. lotaon willows, & sallow
 T. subtusaon poplar ; upon the twigs
 " retusaon sallow, willow, poplar, ; upon the axils of the leaves
 P. chion dock, hawthorn, sallow ; and probably lettuce, sow thistle, "tea tree" &c. ; purplish brown
 " flavocincta ...on dock, chickweed, groundsel, mint, &c. ; in gardens, on everlasting pea, plum, &c.
 X. conformis ...on alder, birch
 H. proboscidalis.on nettle ; rather large, globular (slightly oval) indented on upper side ; pale yellow

LARVÆ]

If the weather is mild, many hibernating larvæ may be found in the evening, or in the day-time where the sun is shining. Those feeding on grasses, low plants, &c., are best found in the evening, with the aid of a lantern. The edges of wood-ridings, hedge banks, &c., should be examined on mild evenings, and a good supply of the herbage upon which the species is found be taken away for their sustenance.

- O. filigrammaria bilberry and sallows
 C. munitata ...from Sept. groundsel
 C. suffumata ...full fed in the autumn ; turns to a pupa this month or the next
 B. glandifera ...from Sept., lichens on walls
 " perlafrom Sept., lichens on walls
 L. vitellinafrom Oct., grasses
 " turcagrasses
 " lithargyria ...chickweed, plantain grasses &c.
 " straminea ...common reed, and coarse grasses, in damp meadows and borders of streams
 M. aniceps?
 A. basilineafrom Aug., various plants
 A. lucerneharebell, dandelion, &c.
- N. festivafrom July, violet, sallows, foxglove, &c.
 " umbrosafrom Aug., dock and various low plants
 E. licheneafrom Nov., ragwort, and various low plants on the coast
 P. empyreafrom Nov., pilewort, &c.
 S. anomalagrass, in open parts of woods
 C. falsellusto May, the moss growing on walls and rocks, Grimmea pulvinata, &c.
 C. phragmitellus from Oct., common reed
 E. elutellanuts, chocolate, figs, &c.
 P. gentianana ...teazle
 O. antiquana ..Stachys arvensis, r.
 E. scutulana ...in thistle stems

LARVÆ]**FEBRUARY**

- E. gallicolana ...oak apple galls
 C. cosmophorana bark of spruce, and Scotch fir
 R. resinanain twigs of Scotch fir ; and it is said in the resinous exudation
 S. corollanashoots of aspen
 D. tanacetana?...tansy
 A. Schrebersiana bark of elm
 C. Dipoltana ...seeds of Achillea millefolium
 P. Birdellain grass stems, and probably among hay grass
 T. rusticellaon cloth, &c.
 I. Oehlmanniella from Oct., in a flat case under fallen leaves
 G. ericetellafrom Sept., Erica cinerea and on E. tetralix, and Calluna erica
- G. luculellain decayed wood
 P. Metzneriella...in heads of Centaurea nigra
 " carlinella ...Centaurea nigra, and thistle heads
 H. bracteella ...in decayed wood
 C. pseudo-spretella dried peas, &c.
 B. grandipennella furze
 A. Gædaretella...in bark of alder, birch, &c.
 C. farinatella ...Scotch fir
 L. paludicolella...Epilobium atra (Hellerella) hirsutum, hawthorn berries, and shoots of apple
 N. aurellain bramble; may be found all the year round

PUPÆ]

"February fill-dyke" will oppose many obstacles to the pupa hunter. But it is hoped that the long list of species, many of them decidedly "good," which will be found set forth as possible to be obtained this month, will induce extra activity, and convert what might otherwise be only a simple ramble for health sake, into a profitable, as well as health-giving, excursion.

- P. Machaonon stems of Peucedanum palustre, in fens
 P. brassicæ ... }
 " rapæ } on palings, walls, &c.
 " napi }
 A. cardamines ...on stems of grass, &c.
 S. ocellatussub., at willows, poplars, &c.
 " populisub., at poplars, willow, &c.
 " tiliaesub., at elm, lime, beech
 C. ligniperda.....at various trees ; spun up, under bark, &c. ; but s. buries
 L. asellusspun up, on a leaf
 A. mendicaunder moss, on trees bordering ditches
 " lubricepeda } spun up, on trees,
 " menthrasti } palings, &c.
- A. urticæunder moss, on trees
 O. pudibunda ..in dead leaves, under moss, &c.
 E. versicolora ...spun up, at birch
 S. carpinicocoon amongst leaves, heath, &c.
 E. dolobraria ...under moss on oak, &c.
 S. illunariasub., at willow, oak, &c.
 O. bidentata ...under moss on various trees
 N. zonariasub., at sandhills on the coast
 B. hirtariasub., at elm, lime, ash, and fruit trees [&c.
 A. prodomaria ...sub., at oak, elm,
 " betulariasub., at oak, elm, birch, and other trees
 H. abruptaria ...spun up, on twigs, &c., of lilac, rose, or privet

PUPÆ]**FEBRUARY**

- T. consonaria ...under moss at r. of beech, oak, birch
 " biundularia ...spun up, on oak and birch
 " punctulata ...under moss, on birch, and alder; or in bark crevices
 I. lacteariaspun up, among leaves of oak, and birch
 E. poratafastened to leaf of oak
 " punctariafastened to leaf of oak, or birch
 " trilinearia ...fastened to leaf of beech
 " pendularia ...fastened to leaf of birch
 E. hepataamong moss, &c., on alder
 C. exanthemaria spun up, under leaves of sallow, and alder
 M. liturataat larch, rarely within 2 feet of the tree
 N. pulveraria ...in withered sallow leaves
 F. carbonaria ...among dead leaves of sallow, and birch
 " pinariaat Scotch fir and larch; in open places in woods, rarely within 2 feet of the tree, at 1½ to 2 inches deep
 A. æscularia ...sub., at elm, oak, lime, sloe, hawthorn
 L. multistrigaria sub., about Galium
 E. albulata ...within the spun-up sepals of yellow rattle
 " decolorata ...about *Lychnis dioica*
 E. venosataabout *Silene*, and *Lychnis*
 " consignata ...probably under moss, and loose bark, in apple orchards
 " pulchellata ...among the seeds and dead fl. of foxglove
 " isogrammata about *Clematis vitalba*
 " fraxinataon ash, under moss, and loose bark
 " nanataabout heath
 " vulgatasub., about various plants, and trees
- E. minutataabout heath
 " assimilata ...in crevices, about currant and hop
 " exiguaabout oak, &c.
 M. ocellataamong Galium; spun up, near the ground
 M. subtristata } sub., near Galium
 " galitata}
 A. sinuatain earthen cocoon; on the ground, among Galium
 " badiatain earthen cocoon; on the ground, beneath dog rose bushes
 " derivatasub., at dog rose
 C. sagittataspun up, among Thalictrum; or on the ground near; in fens
 E. lineolatacocoon attached to Galium verum, under the surface, on sandhills
 D. bicuspisspun up, on birch trunks in the S.; alder in the N.; rarely above 2 ft., from the ground
 " furculaspun up, on trunk of willow, or sallow
 " bifidaspun up, on trunk of poplars
 " vinulaspun up, on trunk of willows, poplars, and sallows; three, or four feet from the ground
 S. fagispun up, among leaves of beech, oak, birch, elm; s. at r.
 P. bucephala ...sub., at various trees
 C. curtulaspun up, between dead leaves of poplars, and sallow
 " reclusaspun up, among dead leaves of sallows, poplars, willows
 P. palpinaat willows, and poplars, on edges of streams, or under sods near
 N. camelinasub., at various trees
 " cucullina ...sub., at maple, and sycamore
 " carmelitasub., at birch
 " dictæaat poplars, and willows, or under sods near

PUPÆ]**FEBRUARY**

- N. dictæoides ...sub., at birch
 " dromedarius...sub., at birch, alder,
 nut
 " ziczacsub., at poplars, sal-
 low, willows
 " trepidasub., at oak
 " Chaoniasub., at oak
 " Dodoneasub., at oak, and
 birch
 T. batisnear bramble, and
 wild raspberry [leaves
 C. duplarisbetween united birch
 " fluctuosa ...among birch leaves
 " flavigornis ...between united birch
 leaves
 D. Orionat birch, and oak,
 in a cocoon of gnawed bark,
 or rotten wood
 A. tridensspun up, in crevices
 of bark, at hawthorn, sloe, rose,
 willow, sallow, mountain ash
 " psain bark crevices of
 various trees
 " leporinain excavations in the
 bark of birch, poplar, alder,
 sallow
 " acerisspun up, among fallen
 leaves, and under loose bark of
 sycamore, horse chestnut, maple,
 birch, and s. oak
 " megacephala...under loose bark of
 poplar
 " strigosaamong dead leaves
 of hawthorn, or rubbish or de-
 cayed wood ; s. sub.
 " alnibetween leaves of
 various trees, or inside bramble
 sticks
 " ligustrispun up, under moss,
 stones &c., near ash, and privet ;
 also sub. ; also found under the
 top stones of walls against the
 tree
 " rumicis.....spun up, in crevices
 of trees, palings, walls, &c.
 A. putrissub., at elm
 D. pinnastri.....in a cocoon on the
 ground among dock, sorrel, &c.
 X. conspicillaris sub., at elm, and
 other trees
- M. albicolon.....sub., near Atriplex,
 Chenopodium, lettuce, &c.
 C. Morpheus ...spun up, in a leaf,
 or an earthen cocoon, attached
 to food plant
 A. segetum, s. . sub., among Crucifi-
 teræ, grass, &c.
 T. piniperda.... at Scotch and other
 firs, in open places in fir woods,
 and on the margin, in crevices
 of bark, and under moss and
 fallen needles
 T. gothicasub., at various trees
 " leucographa } at r. of low plants
 " rubricosa ... }
 " instabilis ... } at r. of various trees
 " stabilis}
 " opimaat r. of Rosa spinosissima,
 and dwarf sallow ; on
 sandhills in the north, below
 the sand
 " populetisub., at poplars,
 especially Populus nigra ; deep
 " gracilissub., at willows,
 sowls, and low plants
 " miniosaamong fallen leaves
 &c.
 " mundaunder moss at base
 of oaks
 crudasub., at oak
 D. carpophaga sub., near Silene and
 Lychnis, on the coast ; found by
 raking sandhills
 " capsophila .. } sub., about Silene
 " cæsia } maritima
 " capsincola ...sub., near Lychnis
 H. serenasub., near Sonchus,
 and lettuce
 H. glaucasub., near sallow,
 and birch
 " oleraceasub., near elm,
 nettle, dock, &c., also in kitchen
 gardens
 " thallassina ...sub., near honey-
 suckle, sallow, broom, &c.
 X lithorizanear honeysuckle, in
 a papery cocoon, on the ground
 C. verbasci ... } sub., in earthen co-
 scrophulariae } coon, near mullein
 " and figwort, s. 2 years in pupa

PUPÆ]**FEBRUARY**

C. lychnitis	in earthen cocoon, near white and black mullein ; s. 2 years in pupa	E. venustula .....at r. of <i>Tormentilla</i> reptans, and grass
" asteris	near golden rod, &c. ; s. 2 years in pupa	B. argentula .....among grass, on the ground
" gnaphalii	near golden rod	B. parthenias ...at birch, in crevices of bark, or on the ground
" umbratia.....sub.,	near <i>Sonchus</i> , &c.	A. urticæ .....spun up, among nettle leaves
H. marginata ...sub.,	near <i>Ononis</i> <i>procurrens</i>	" <i>triplasia</i> .....spun up, among nettle leaves, hop, &c. [garis
" dipsacea	among melilot, and probably <i>Silene otites</i> and <i>Linaria</i>	P. ænea.....among <i>Polygala vul-</i> <i>E. sambucalis</i> ...spun up, in crevices, in palings, walls, &c., near elder
A. myrtilli	spun up, in heath	G. canella .....among <i>Salsola kali</i>

IMAGOS]

The species ordinarily due this month will be found specified below ; but it does not follow that they will be obtainable, even in a favourable locality, unless the weather is tolerably mild.

Some of the wingless ♀ of the genus *Hibernia*, especially when they hide on tree trunks, are often a puzzle to see. In searching trunks, palings, and wooden fences for moths, an operation which may with advantage be pursued at almost all seasons of the year, not much success is likely to follow unless it be done systematically. As in pupa digging, the most protected side of the tree trunk is found to be the most productive, which is generally the northern and eastern face. It is seldom of much use examining the southern side at all ; it is probably too much exposed to sunshine and the prevailing winds to be agreeable as a place of concealment. Fences in protected situations are consequently found to be better for harbouring insects than where fully exposed. Some of the larger moths thus resting are conspicuous enough, even from a distance ; others from their resemblance in colour and marking to the tree trunk or fence, or the lichen upon them, are difficult to be discerned, especially if the wood under examination is a gloomy one, or their resting place is in a "bad light." The tree to be examined should be approached carefully, or some species which are easily alarmed will fly off before the net can be brought into use. A general examination of the north-eastern aspect should be first made, from the highest point at which a moth can be seen down to the ground ; then, if small, or inconspicuous species are being sought for, the finger should be passed in lines down the trunk, the eye attentively following. To the surprise of the searcher he will sometimes thus come upon a specimen he would otherwise have missed.

E. lanestris	on tree trunks, near the ground	A. prodromaria, e. at rest on trees
P. pilosaria ... ♂ comes to light ; ♀	on tree trunks, &c.	N. hispidaria ... at rest on oak trunks

T. crepuscularia at rest on trees

IMAGOS]

FEBRUARY

- H. rupicaparia*) at rest on tree trunks
 " *leucophearia*) or in hollow trees ;
 " *progemmaria*) at dusk they frequent
A. escularia, e.) hedges, the ♀ sitting
 on the twigs, the ♂ fluttering
 around. Hedges favourably
 placed may be beaten into an
 umbrella for the ♀, which may
 also be found on the top ledge of
 palings, &c., running up to the
 highest point. II. *leucophearia*
 ♂ often flies by day
- T. instabilis*at the sallows in
 mild seasons
T. stabilis " " "
T. hyemanaoak woods
T. pellionella ...to November
D. applanella ...flies over hedges, &c.
N. minusculella among pear trees

The following are among the species which have hibernated, and which have been found this month :—

- | | |
|---|---|
| <i>G. rhamni</i> .....in and near woods | <i>A. saucia</i> .....this species has been taken this month, and also in |
| on sunny days | March, April, July, August,
Sept., and Oct. |
| <i>C. Eduse</i> .....at rest in hollow trees, outhouses, &c. | |
| <i>Hyale</i> | <i>C. vacinii</i> |
| <i>V. c-album</i> | " <i>spadicea</i> |
| " <i>urticea</i> | " <i>erythrocephela</i> |
| " <i>polychloros</i> | <i>S. satellitia</i> |
| " <i>Antiopa</i> ... &c., and s. flying | <i>D. rubiginea</i> |
| " <i>Io</i> .....about on sunny days | <i>H. croceago</i> |
| " <i>Atalanta</i> | <i>D. templi</i>hides under stone
heaps, in elevated districts |
| " <i>cardui</i> | <i>C. vetusta</i> |
| <i>M. stellatarum</i> , s. from Sept., flying in the sunshine | " <i>exoleta</i> |
| <i>E. fasciaria</i> ... } may be beaten from | <i>X. conformis</i> ... |
| <i>T. variata</i> } Scotch fir | " <i>rhizolitha</i> |
| <i>C. fluviana</i> .....comes to l. | " <i>semibrunnea</i> |
| <i>S. dubitata</i> .....comes to l. | " <i>petrificata</i> ... |
| <i>C. psitticata</i> ... } in hollow trees, out- | <i>C. chamomillæ</i> ...at rest on various
materials |
| " <i>mata</i> } houses, &c. | <i>G. libatrix</i>in cellars and hollow
trees |
| " <i>silacea</i> ... } | <i>H. rostralis</i>in gardens and out-
houses |
| <i>A. auricoma</i> | <i>E. ocellea</i> .....comes to l. |
| <i>L. lithargyria</i> ? | |
| <i>A. puta</i> | |
| " <i>suffusa</i> | |

MARCH

OVA]

During this boisterous month,

“whose Spring is but the child
Of churlish Winter in her froward moods,
Discovering much the temper of her sire,”

many fine days are often available for entomologising. As many species set forth in the accompanying list will ere long cease to be found in the egg form, it is desirable the collector should clear off his arrears of work in this section as soon as possible. The remarks on egg-hunting under previous months should be re-perused. Wherever a species is known to have occurred, there is a possibility of finding the eggs in likely situations.

- | | | |
|--------------------------|--|--|
| T. quercus | on oak | C. elinguaria ...on oak, honey-suckle, hawthorn, sloe; also heath, bilberry, &c.; brick-shaped, large, purplish slate colour |
| " w-album | on wytch elm | E. alniaria .....on alder, birch, sallow, beech, &c.; brick-shaped, like all the Ennomos |
| " pruni | on sloe | " tiliaria .....on oak, sallow, birch, alder, &c.; purplish |
| L. Ægon | on Ornithopus perpusillus; white; generally hatch this month | " fuscantaria ...on ash, privet; upon the twigs, in small batches |
| H. comma | on trefoil, and other Leguminosæ | " erosaria .....on oak, birch, &c. |
| L. dispar | on the trunks of sloe, hawthorn, and various fruit trees; in a conical heap, covered with down | " angularia ...on oak, birch, beech, &c. |
| " monacha | on oak, beech, birch, fir, apple, &c. | H. pennaria .....on oak |
| T. crataegi | from Oct., on hawthorn; also s. sloe, sallow, birch, oak | A. prodromaria...in bark crevices of oak, birch, elm, nut |
| P. populi | from Nov., on oak, poplar, lime, ash, hawthorn | F. pinetaria .....on bilberry |
| B. neutria | from July, on sloe, hawthorn, and fruit trees; in batches spirally round twigs and branches | H. leucophearia .on oak |
| " castrensis | from July, on Artemesia maritima, Daucus mari-tamus, &c. | " aurantiaria ...on oak, birch, hawthorn, &c. |
| E. vespertaria ...on nut | [sallow apicaria | " defoliaria ... on oak, nut, sloe, hawthorn, birch, elm, lime, &c. |
| N. zonaria | on sea reed, or marshum (Ammophila arundinacea) | C. brumata .....on oak, and other trees |
| | and other sand-hill plants; in clusters in the interstices; long, bright-green | " boreata.....on birch |
| | | O. dilutata .....on oak, and other trees |
| | | E. subciliata ...on maple; at foot-stalk of leaf |
| | | M. rubiginata ...on alder; large |
| | | A. badiata, e. ...on dog rose |

OVA]

- A. derivata*, e....on dog rose
S. vetulataon buckthorn
C. immanata ...probably on alder,
 and other trees, and strawberry,
 bilberry, &c.; large
" prunataon currant, and
 gooseberry; upon the bark;
 large
" testaceaon heath, birch, sal-
 low, poplar, &c.; singly, large
" propinataon poplar, bilberry,
 whortleberry; globular, large,
 yellow
" fulvataon dog rose; rose
 pink, large [thorn; large
" pyrataon Galium, haw-
 thornon black, and red
 currant; large
P. cervinariaon mallow
C. spartanaon broom
P. Cassineaon oak
P. plumigeraon maple, chiefly on
 the twigs, in hedges not shaded
 by trees. Best found this month
 when the sun is shining, which
 renders them clearly visible.
 Often singly, but s., in clusters
 of two, three, or many more.
 Circular, smooth, brown above,
 whitish beneath
- C. flavigernis*, e. on birch; red
G. flavagoon stems of marsh
 thistles, burdock, &c.; in heaps
S. satellitiaon oak; upon the
 twigs
D. rubiginea.....probably on apple,
 &c., and dandelion and other
 low plants
P. chion dock, hawthorn,
 sallow, and probably lettuce,
 sowthistle, tea tree, &c.;
 purplish brown
" flavocincta ...on dock, chick-
 weed, groundsel, mint, &c.;
 in gardens on everlasting pea,
 plum, &c.
D. templion Heracleum spho-
 dylium; upon the leaves
T. subtusaon poplar; upon
 the twigs
" retusaon sallow, willow,
 poplar; upon the axils of the
 leaves
C. vetustaon various meadow
 and marsh plants, also poplar
X. conformis, b. on alder, birch
H. proboscidalis on nettle; rather
 large, globular (slightly oval)
 indented on upper side; pale
 yellow

LARVÆ|

A good harvest is sure to reward the industrious worker this month, if he persistently prosecutes his larva-searching, on mild evenings, in good localities, there being so many species which have hibernated, and only now seem to require a ramble before making a selection of their hiding place for pupation.

In the lists of larvae, the month of origin of hibernation has been specified as far as possible. When a larva ceases to be mentioned, it may be assumed that at the last period of its mention, it was nearly if not quite full fed.

- S. Ægeria*...from Sept., grasses
Megærafrom Sept., grasses
R. cratægata ...from Sept., haw-
 thorn, sloe
H. auroraria ...from Aug., plantain
- A. osseata*...from Aug., dande-
 lion, &c.
S. belgiariafrom Aug., heath
O. filigrammaria bilberry and sallows
E. tenuiatain sallow catkins

LARVÆ]**MARCH**

- T. variata*.....Scotch fir, larch, &c.
M. montanata, e. from Oct., primrose
C. munitata ...from Sept., groundsel
C. bilineatagrasses, chickweed, dock
C. suffumata ...full fed in the autumn; turns to a pupa about this time
E. palumbaria ...broom, Genista, heath, clover, &c.
B. glandifera ...from Sept., lichens on walls
" *perla*..... ...from Sept., lichens on walls
L. conigeracouch, and other grasses. This, and other species of *Leucania* may be s. found by pulling up conspicuous tufts of grass, and gently beating them
" *turca*grasses, in woods
" *lithargyria* ...chickweed, plantain, grasses, &c.
" *pudorina* ...grasses, common reed
" *straminea* ...reed, and coarse grasses, in damp meadows and borders of streams
" *impura*from Oct., *Carex*, and *Dactylis glomerata*
" *pallens*from Oct., *Deschampsia cespitosa*
S. ulvaefrom Sept., common reed
X. rureagenerally on grasses
" *hepatica*from Aug., grasses, chickweed, &c.
A. australis ...from Oct., *Cichorium*, *Poa annua*, and other plants
L. testaceaon the lower part of grass stems
M. furva*Aira canescens*
A. basilineafrom Aug., various plants; before hibernation on immature grains of wheat
" *unanimis*from Sept., grasses. Full fed in autumn; hides under bark of willows or poplars, or among the soil at their roots;
- C
- towards the end of this month wanders about for a few days, then changes to a pupa in a slight cocoon, at the foot of a tree, or under bark
M. strigilisgrasses, and other plants
C. alsinesfrom Sept., dock, chickweed, plantain
" *cubicularis* ...from Sept., in corn ricks, on grass, pulse, and grain
R. tenebrosafrom Sept., various plants
A. corticeafrom Sept., *Chenopodium*, &c.
" *cinerea*from Sept., r. of low plants
" *lucernea*dandelion, harebell, &c.
" *Ashworthii* ...from Sept., fescue grass, hawkweed, sun cistus, thyme, heath, harebell
T. ianthinafrom Aug., broom, chickweed, &c.
" *fimbria*from Oct., birch, sallow, oak, ash, broom, primrose, &c. [&c.
" *interjecta*dock, mallow, grass,
" *subsequa*from Oct., low plants
" *orbona*from Aug., broom and low plants; when young on sallow buds
" *pronuba*from Aug., dock, and various other plants
N. festivafrom Aug., violet, sallow, foxglove, &c.
" *umbrosa*from Sept., dock, and low plants
" *xanthographa* from Oct., grasses and low plants
C. xerampelina, s. from Oct., ash ; hides in crevices of bark
E. lutulentafrom Oct., *Lithospermum arvense*, and other low plants
" *lichenea*from Nov., ragwort, and various low plants
P. empyreafrom Nov., pilewort, &c.

LARVÆ]

- A. advenafrom Aug., lettuce, knotgrass, and various plants
 H. adustafrom Aug., low plants
 " rectilineafrom Aug., sallow, bramble, bilberry
 A. myrtilli, sfrom Aug., heath
 P. chrysitisfrom Sept., burdock, thistle, nettle, dead nettle, &c.
 M. typicafrom Sept., dock, low plants, &c.
 " maurafrom Sept., dock, chickweed, ivy, &c.
 H. proboscidalis from July, nettle
 H. derivalisfrom Aug., among dead oak leaves
 " barbalisfrom Sept., birch catkins
 A. pinguisinalis ...in greasy horse cloths, rubbish in houses, &c.
 P. stratiotalis ... aquatic, on Callitricha verna, Stratiotes aloides, &c.
 B. asinalis..... ...from Oct., madder, fl., and young seeds
 S. muralisthe mosses Grimmia pulvinata, Dryum capillare, &c.
 " mercurialis ...the mosses Hypnum elegans, and Jungermannia dilatata
 " cratægalis ...the mosses Hypnum elegans, and Jungermannia dilatata
 C. tristellusin damp moss
 " culmellus ...in damp moss
 C. phragmitellus from Oct., reed
 M. cibrellafrom Oct., in thistle stems
 P. abietellafrom Sept., Scotch fir-cones, decayed wood, and shoots
 T. adjunciana...ivy, honeysuckle, &c.
 P. gentianana ...from Nov., in teazle heads [poplar
 G. nisanacatkins of white Penkleriana...alder catkins
 E. cirsianafrom Sept., in thistle and knapweed stems, in woods
- E. Pfulgiana.....from Sept., in thistle and knapweed stems, in open places
 " Brunniichiana in stems of coltsfoot
 " nigricostana...Stachys, r.
 " grandevana...in r. of coltsfoot and Petasites, on the ballast heaps at S. Shields, making long tubes in the sand
 S. Woeberana ...from Oct., bark of plum, &c.
 C. strobilana ...from Oct., cones of spruce
 Hercyniana ..from Oct., spruce
 R. turionana ...in shoots of Scotch fir
 S. coniferana ...from Oct., under bark of Scotch fir
 " Leplastriera from Oct., in stems of cabbage
 " regianafrom Oct., under sycamore bark
 D. politanafrom Oct., Achillea millefolium, r.
 E. nanabirch catkins
 " roseana..... ...from Oct., seeds of teazle
 C. Francillonana from Oct., in stems of wild carrot
 T. pesudo-bombycella from Oct., lichen, on oak trunks, &c.
 S. triquetrella ...on old palings on moors, marshes, &c., in a triangular case
 " inconspicuella in a case on trees and palings
 T. ganomella ...from Oct., in birds' nests
 " biselliellafrom Oct., in bird skins, hair seating, &c.
 L. prælatella ...from Sept., in a flat case, under wild strawberry
 A. Degeerella ...from Oct., wood anemone, &c.
 D. assimilella ...broom
 G. ericetellafrom Sept., on Erica cinerea, E. tetralix, and Calluna erica
 " arundinetella.. Carex riparia
 " domesticella ..in moss, on old walls

MARCH

LARVÆ]

MARCH

- G. luculellain decayed wood
 " bifractella ...from Oct., Conyza squarrosa, Inula dysenterica
 " cerealellafrom Oct., in grains of wheat and barley
 P. Metzneriella from Oct., Centaurea nigra, heads
 " carlinella .. from Oct., Centaurea nigra, and thistle heads
 H. bracteella ...in decayed wood
 CE. minutella ...on seeds
 " pseudo-spretella from Oct., dried fruit, peas, and other seeds, also hams, &c.
 A. glaucinella ...in bark of oak, horse chestnut, &c.
 " Goëdartella ...in bark of alder, birch, &c.
 Brochellabirch shoots
 C. farinatella ...Scotch fir
 " Gyselinella...Scotch fir, in a web between leaves
 O. pinariellaScotch fir
 G. tringipennella in plantain
 C. pyrrhulipennella from Oct., heath
 " discordella from Oct., Lotus corniculatus
 " genistæcolella from Oct., Genista anglica
- C. lineolella.....Ballota nigra
 " juncicolella ...from Oct., heath
 " laricellafrom Sept., larch
 " viminetella ...from Sept., sallow, and osier
 " solitariella ...from Oct., Stellaria holostea
 L. palludicolella Epilobium hirsutum atra (hellerella) hawthorn berries, and shoots of apple
 C. flavicapitella from Sept., in twigs of hawthorn, in which it bores
 A. æratella'from Oct., galls on knotgrass
 E. apicipunctella from Oct., in Aira cinereopunctella from Sept., in Carex glauca
 " trapeziella ...from Oct., in Luzula pilosa
 " subobscurella Holcus mollis
 T. marginata (emyella) from Oct., in bramble
 " dodoneælla ...from Oct., in oak
 P. trigonodactylus in coltsfoot, fl. stems
 " tephradactylus from Sept., golden rod, in shady places
 " osteodactylus from Sept., golden rod

PUPÆ]

As other, and more attractive work will soon be crowding upon us, and many species are beginning to emerge, the final search for winter pupæ should, if possible, be completed this month, if it has not been done long before.

- P. Machaonon stems of Peuce- danum palustre ; in fens
 P. brassicæ } on palings, walls, &c.
 " rapæ } napi A. cardamines on stems of grass, &c.
 L. Alsusamong Anthyllis vulneraria
 S. ocellatussub., at willows, poplars, &c.
 " populisub., at poplars, willow, &c. [beech
 " tiliæsub., at elm, lime,
- C. ligniperda ...at various trees ; spun up, under bark, &c., but s. buries
 L. asellusspun up, on a leaf
 L. rubricollis ...under moss, on rotten trees, larch, &c.
 A. mendicaunder moss, on trees bordering ditches
 " lubricepeda | spun up, on trees,
 " menthrasti | palings, &c.
 " urticaunder moss, on trees
 O. pudibunda ...in dead leaves, under moss, &c.

PUPÆ]

MARCH

- E. versicolora ...spun up, at birch
 S. carpinicocoon amongst leaves, heath, &c.
 E. dolobraria ...under moss, on oak, &c.
 S. illunariasub., at willow, oak, &c.
 O. bidentata ...under moss, on various trees
 N. zonariasub., at sandhills on the coast
 B. hirtaria.....sub., at elm, lime, ash, and fruit trees
 A. betulariasub., at oak, elm, birch, and other trees
 H. abruptaria ...spun up, on twigs, &c., of lilac, rose, or privet
 T. consonaria ...under moss at r. of beech, oak, birch
 " biundularia ..spun up, on oak, and birch
 " punctulata ...undermoss, on birch and alder, or in bark crevices
 I. lacteariaspun up, among leaves of oak, and birch
 E. poratafastened to leaf of oak
 " punctariafastened to leaf of oak, or birch
 " trilinearia.....fastened to leaf of beech
 " pendularia ...fastened to leaf of birch
 E. separataamong moss, &c., on alder
 C. exanthemaria spun up, under leaves of sallow, and alder
 M. liturataat larch, rarely within 2 ft. of the tree
 N. pulveraria ...in withered sallow leaves
 F. carbonaria ...among dead leaves of sallow, and birch
 " pinariaAt Scotch fir, and larch ; in open places in woods, rarely within 2 ft. of the tree, at 1½ to 2 in. deep
 L. multistrigaria, sub., about Galium
 E. albulatawithin the spun-up sepals of yellow rattle
- E. decolorata ...about *Lychnis dioica*
 E. venosataabout *Silene*, and *Lychnis*
 " consignata ...probably under moss, and loose bark, in apple orchards
 " pulchellata ...among the seeds, and dead fl. of foxglove
 " isogrammata, about *Clematis vitalba*
 " fraxinataon ash, under moss, and loose bark
 " nanataabout heath
 " vulgata.....sub., about various plants and trees
 " minutataabout heath
 " assimilata ...in crevices, about currant and hop
 " exiguata ...about oak, &c.
 M. ocellataamong *Galium* ; spun up, near the ground
 M. subtristata } sub., near *Galium galiata*
 A. sinuata.....in earthen cocoon ; on the ground, among *Galium*
 " badiata.....in earthen cocoon, on the ground, beneath dog rose bushes
 " derivatasub., at dog rose
 C. sagittataspun up, among *Thalictrum* ; or on the ground near ; in fens
 " suffumata ...changes to a pupa this month among bedstraw or ragwort
 E. lineolatacocoon attached to *Galium verum* under the surface on coast sandhills
 D. bicuspisspun up, on birch trunks in the south ; alder in the north ; rarely above 2 ft. from the ground
 " furculaspun up, on trunk of willow, or sallow
 " bifidaspun up, on trunk of poplars
 " vinulaspun up, on trunk of willows, poplars, and sallow ; three or four feet from the ground

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MARCH

- S. fagi*spun up, among leaves of beech, oak, birch, elm; s. at r.
P. bucephala ...sub., at various trees
C. curtulaspun up, between dead leaves of poplars, and sallow
 " *reclusa*spun up, among dead leaves of sallows, poplars, willows
P. palpinaat willows, and poplars, on edges of streams, or under sods near
N. camelinasub., at various trees
 " *cucullina*sub., at maple, and sycamore
 " *carmelita*sub., at birch
 " *dictæa*at poplars, and willows, or under sods near
 " *dictæoides*sub., at birch
 " *dromedarius* ..sub., at birch, alder, nut
 " *zicza*sub., at poplars, sallow, willows
 " *trepida*sub., at oak
 " *Chaonia*sub., at oak
 " *Dodonea*sub., at oak, and birch
T. batisnear bramble, and wild raspberry
C. duplarisbetween united birch leaves
 " *fluctuosa*among birch leaves
D. Orionat birch, and oak, in a cocoon of gnawed bark, or rotten wood
A. tridensspun up, in crevices of bark, at hawthorn, sloe, rose, willow, sallow, mountain ash
 " *psi*in bark crevices of various trees
 " *leporina*in excavations in the bark of birch, poplar, alder, sallow
 " *aceris*spun up, among fallen leaves, and under loose bark, of sycamore, horse chestnut, maple, birch, and s. oak
 " *megacephala* under loose bark of poplar
- A. strigosa*among dead leaves of hawthorn, or rubbish, or decayed wood ; s. sub.
 " *alni*between leaves of various trees, or inside bramble sticks
 " *ligustri*spun up, undermoss, stones, &c., near ash, and privet; also sub.; also found under the top stones of walls against the tree
 " *ruminis*spun up, in crevices of trees, palings, walls, &c.
A. putrissub., at elm
D. pinastriin a cocoon, on the ground, among dock, sorrel, &c.
X. conspicillaris, sub., at elm, and other trees
M. albicolonsub., near *Atriplex*, *Chenopodium*, lettuce, &c.
C. Morpheus ..spun up, in a leaf, or an earthen cocoon attached to food-plant
A. setegum, s. ..sub., among Cruciferæ, grass, &c.
T. piniperda.....at Scotch, and other firs, in open places in fir woods, and on the margin, in crevices of bark ; and under moss and fallen needles, rarely within 2 ft. of the tree, 1½ to 2 in. deep
D. carpophaga..sub., near *Silene*, and *Lychnis*, on the coast ; found by raking sandhills
 " *capsophila* { sub., about *Silene*
 " *cæsia* } *maritima*
 " *capsincola* ...sub., near *Lychnis*
H. serenasub., near *Sonchus*, and lettuce
H. glaucasub., near sallow, and birch
 " *oleracea*sub., near elm, nettle, dock, &c., and in kitchen gardens
 " *thlaspassa*.... sub., near honeysuckle, sallow, broom, &c.
C. verbasci ... } sub., in earthen coon, near mullein, and figwort
 " *scrophulariæ* } s. 2 yrs. in pupa

PUPÆ]**MARCH**

- | | | |
|-----------------------|---|---|
| C. lychnitis | in earthen cocoon,
near white and black mullein ;
s. 2 yrs. in pupa | B. parthenias ...at birch, in crevices
of bark, or on the ground |
| " asteris | near golden rod, &c. ;
s. 2 yrs. in pupa | A. urticæ.....spun up, among nettle
leaves |
| " gnaphalii | near golden rod | " triplasia ...spun up, among nettle
leaves, hop, &c. |
| " umbratica | sub., near Sonchus,
&c. | P. æneaamongst Polygala
vulgaris |
| H. marginata .. sub., | near Ononis
procurrens | E. sambucus ...spun up, in crevices
in palings, walls, &c., near
elder |
| " dipsacea | among melilot, and
probably Silene otites, and
Linaria | G. canella.....among Salsola kali |
| E. venustula..... | at r. of Tormentilla
reptans, and grass | H. prasinana .. under moss at base
of oaks |
| B. argentula..... | among grass, on the
ground | I. masculella } among dead leaves
" Zinckenella } " Oehlmanniella } of birch and oak |

IMAGOS]

If the season should be a forward one, the sallows will be in bloom this month. They are found to be a great attraction to most of the moths on the wing at this period, more especially the Tæniocampæ, and the hibernating Noctuæ. These, having

"skimmed the dusk fields,"

we shall find feasting on the sparse blossoms,

"In the retired quiet of the night."

If the sallow bushes we are in the habit of visiting are awkwardly situated for the capture of moths, branches of them may be cut before dark, and stuck into the ground at convenient places. If they should afterwards take root in these places, they may save the trouble of the process being repeated next season.

The following are the freshly-emerged species which ordinarily appear this month :—

- | | |
|---|--|
| P. rapæ.....gardens, &c. | L. multistrigaria |
| E. lanestris | E. abbreviata ...among oak |
| &c. | L. lobulata .....on Scotch fir trunks |
| E. versicolora ..in birch woods | A. badiataat sallows, and fly-
ing over hedges at dusk |
| S. illustraria | derivata |
| P. pilosaria at l. ; ♀ on tree trunks | P. polygrammata damp meadows ;
very local |
| N. hispidaria ...on oak trunks | P. nubeculosa |
| B. hirtaria..... | N. carmelita.....on birch trunks, and
palings near. Flies in the sun-
shine ; may be taken at sallows ;
and is attracted by puddles |
| A. prodromaria s. on oaks | C. flavigornis ...at rest on birch twigs |
| T. crepuscularia on tree trunks | |
| H. leucophearia) rest on tree trunks ; | |
| " progemmaria } fly at dusk ; s. come | |
| A. æscularia ...) to sallows (See last
month) | |

IMAGOS]

MARCH

- C. ridensat rest on oaks, at 1 ft. to 4 ft. from the ground
 L. lithargyria, s.
 X. conspicillaris, e. at rest on tree trunks, especially where the bark has been stripped; has also been beaten
 T. piniperda.....at sallows, and at rest on fir trees
 T. gothica..... } The whole of this genus visit the sal-leucographa } low blossoms at dusk " rubricosa ... } and remain feasting upon the honey they contain for some hours
 " instabilis ... } If the situation is " opima favorable the great- " populeti ... est number may be captured by a sheet " stabilis being spread under " gracilis the bushes. Where " miniosa they are difficult to " munda reach, branches of " cruda blooming swallow may be cut before dark, and fixed in the ground
 V. oleagina
 X. lithorizaat sallows, and on trees, walls, &c.
- C. chamomillæ...has been taken at rest on iron bars, and various materials, probably h.
 B. parthenias ...birch woods; flies on sunny mornings over birch trees, and round sallows
 " notharests on a-pens; flies in the sunshine round sallows, &c.
 A. prodromana, e., on moors
 S. pauperana ...among wild rose
 P. crenanamoors, &c.
 C. vernana, e.
 " pygmæana, e. among spruce
 H. fimbriana, e. oak woods in the S., at rest on the branches; darts to the ground when disturbed
 T. hyemanaoak woods, at rest on the branches
 D. fagella, e. ...on tree trunks and palings
 E. avellanella, e. among birch
 T. biselliella ...to Oct.
 D. arenella
 " ciniflonella ...Rannoch
 " rhodochrella beaten from thatch
 B. incongruella on moors, &c.
 E. consortella
 N. aurella.....to August, on tree trunks and palings

The following hibernating species have been taken this month :—

- C. Edusa, C. Hyale, at rest in hollow trees, outhouses, &c.; V. c-album, V. urticæ, V. polychloros, V. Antiopa, V. Io, V. Atalanta, V. cardui, at rest in outhouses, &c. and s. flying about on sunny days; M. stellatarum, hovers over fl. in the sunshine, and also flies in the evening; E. fasciaria, and T. variata, among Scotch fir; C. fluviata, and S. dubitata, at l.; C. psitticata, C. miata, and C. silaceata, in hollow trees, outhouses, &c.; A. auricomæ, L. lithargyria? A. puta, A. suffusa, and A. saucia; C. vaccinii, C. spadicea, C. erythrocephala? S. satellitia, D. rubiginea, and H. croceago, at sallows; D. templi, under stones; C. vetusta, C. exoleta, X. furcifera, X. rhizolitha, X. semi-brunnea, X. petrificata; C. chamomillæ, at rest on iron and other fences; G. libatrix, in cellars and hollow trees; H. rostralis, in gardens and outhouses; E. ocellæa, comes to l.; P. mixtana, P. caudella, D. liturella, D. pallorella, D. umbellella, D. arenella, D. propinquella, D. subpropinquella, D. alstræmeriæ, D. ciniflonella, D. vaccinella, D. conterminella, D. ocellæa, D. applanella (flying over hedges), D. ciliella, D. albipunctella, D. chærophyllo-vorella, D. heracliælla, A. autumnitella, Z. hepariælla, Z. insignipennella, G. stigmatella, G. stramineella, G. populetella, G. phasianipennella, C. cuculipenna, L. episobiælla, P. suffusella, P. pterodactylus.

APRIL

OVÆ]

This is the month when many hibernating species deposit their ova, as well as several which are freshly emerged. Owing to the scarcity of leaves upon the trees and bushes, the egg in many cases may be more readily found than when, later in the season, the branches are more covered. Some day-flyer,

"Drawn from his refuge in some lonely elm,
That age or injury has hollowed deep,"

may sometimes be seen, when the sun shines, engaged in the interesting operation of oviposition. By carefully watching, a clue as to the plant upon which the egg is laid, as well as its situation, will be often afforded.

G. rhamni	on buckthorn; placed singly upon terminal shoots, and on the midrib; pointed	E. angularia ...on oak, birch, beech, &c.
V. urticæ	on nettle; in batches upon underside of the leaves; barrel-shaped, fluted, green	H. pennaria .....from Oct., on oak
" Io.....	...on nettle	B. hirtaria .....on lime, elm, ash, fruit trees; small, green, imbricated
T. quercus	on oak	A. prodromaria in crevices of bark of oak, birch, elm, nut
" w-album	on wytch elm	" betularia .....on oak, elm, hawthorn, birch, beech, alder, mountain ash; very small for the size of the moth
E. lanestris	on hawthorn, sloe, &c.; spirally round twigs, and branches	A. æscularia .....on oak, elm, horse-chestnut, privet, &c.; round the twigs, covered with down
E. versicolora	on birch; upon the twigs, in small batches	L. multistrigaria on Galium
E. vespertaria	on nut	E. subciliata ...on maple; at foot-stalk of leaf
" apicaria	on poplar, willow, sallow	L. lobulata .....on honeysuckle, sallow, willow
R. crategata	to Sept., successive broods, on hawthorn and sloe; oblong, covered with hexamedal ridges; yellow, with red spots, like the imago	" polycommata on honeysuckle, ash
S. illunaria	in the fissures of the bark of willow, ash, hawthorn, plum, &c.; light pink	M. rubiginata ...on alder; large
E. alniaria	on alder, birch, sallow, beech, &c.; brick-shaped, like all the Ennomos	A. badiata .....on dog rose
" tiliaria	on oak, sallow, birch, alder, &c.; purplish	" derivata .....on dog rose
" fuscantaria	on ash, privet; upon the twigs, in small batches	S. dubitata .....on buckthorn
" erosaria	on oak, birch, &c.	C. prunata .....on currant, gooseberry, sloe; upon the bark; large
		" testata .....on heath, birch, sallow, poplar, &c.; singly, large
		" populata .....on bilberry, whortleberry, poplar; globular, large, yellow

OVA]

- C. fulvata*on dog rose; rose pink, large
 " *dotteda*on black and red currant; large
E. cervinaria ...on mallow
 " *lineolata* ... on Galium; in clusters of eight or ten; at first pale yellow, but soon change to bright ochreous-brown
C. spartiataon broom
P. Cassineaon oak
 " *nubeculosa* ...on birch
C. curtulaon poplars & sallow
C. ridenson oak; upon the twigs
G. flavagoon stems of marsh thistles, burdock, &c.; in heaps
A. suffusaon grass, lettuce, radish, &c.
T. gothicaon sallow, oak, and other trees, also many low plants
 " *leucographa* ...on plantain; oval, bright yellow
 " *rubricosa*on dock; pale yellow
 " *opima*on *Rosa spinosissima*; in large clusters, conspicuous at a distance; at first pale yellow,

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- but soon change to pinkish brown. The eggs of this species are, however, as often deposited upon the dead seed-heads of ragwort and houndstongue; also upon marum grass (*Ammophila arundinacea*) and sallow, growing on sandy sea-shores, as upon the food-plant
T. populetion twigs of aspen and poplar, especially *Populus nigra*; in clusters below the axils
 " *gracilis*on willow, sallow, and low plants; often upon seed-heads of plantain; also upon dead reed-heads
 " *miniosa*on oak; in clusters below the leaf-buds
H. croceagoon oak
C. vetustaon poplar, & various meadow and marsh plants
 " *exoleta*on scabious cam-pion, rest harrow
X. petrificata ...on oak, lime, birch; oval, greyish, thickly dotted with purple

LARVÆ]

The indications of past hibernation become numerous in the list this month. It might be supposed that moths and butterflies have a very brief life, as they are often only visible in the winged state for a short time; but with many of the larger species the period of life extends over eleven or twelve months, of which nearly nine are passed in the larva state, though a portion of this time, during the severe cold of winter, they are in a torpid condition. In others, though the total length of life is about the same, the larval life is short, and the imago life is long, commencing at the latter part of the summer, and extending through the winter, to the commencement of the succeeding summer,—interrupted, as in the larval life, by a period of torpidity during the winter. Of course with those insects of which two, or three broods appear in the year, the life is very much briefer. Some species hibernate nearly full-fed, or feeding occasionally during mild weather, are found during this and the next month as larvæ, still unchanged. *E. Lichenea* will be found in its haunts on the coast full-fed, and about to change, from now to July. It is a species which is hard to breed away from its native habitat. The two chief modes of capturing larvæ are by beating, and by searching with a lantern in the evening. It is yet too early in the season, now that we only see

"the first
Hedge-grown primrose that hath burst,"

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for much profit to result from beating, but night searching will well repay the labour. Examine the underwood of one or two years' growth, and the grass at the edges of ridings, with a lantern, immediately after dark, every mild evening. Large numbers of different larvæ may be thus taken during this and the following month. Nearly all the genus *Noctua* can be thus easily found.

The rolled-up leaves and shoots of sallow contain a large number of species, chiefly tortrices. They should be put into a flower pot in a cool place, and fresh leaves added when these are becoming dried up. The following are among the species which may be thus bred, and which will appear in June:—*E. viminalis*, *T. cratægana*, *P. Lecheana*, *P. capræana*, *S. dealbana*, *H. angustana*, *G. populella*, *A. pygmæella*. By shaking or beating wild plants and flowers into a net or other receptacle many larvæ may be obtained, particularly of the smaller species.

Grasses, rushes, and carices are now productive of sundry Elachistidæ and Coleophoræ, and several of the larger tribes. Sheltered spots in woods and lanes are the best places; and for the larger species wet evenings the best time. The mealy guelder rose, is an early tree, and will repay a search. Hawthorn trees nourish hordes of common larvæ. *P. Verhuelella* must be taken now, mining in the seed fronds of *A. Ruta muraria*, and other ferns. *L. Rubiella* is often *too* common in raspberry shoots. The pink larva betrays its presence by the blighted aspect of the young shoots.

- | | | |
|--|---|---|
| A. Niobe | from Aug., violet & heartsease ; should be looked for in localities where <i>A. Aglaia</i> , and <i>A. adippe</i> abounds | L. Arion, thyme ; in dry and elevated districts, and hilly, thyme-covered slopes and fields |
| " Euphrosyne, e. from July, dog and sweet violet, feeds in the sunshine ; hides beneath primrose and other leaves | " S. alveolus .....bramble, wild raspberry | |
| " Selenè, e. ....from July, dog and sweet violet . | T. tages.....from Sept., <i>Lotus corniculatus</i> | |
| M. Artemis, from Aug., in wet meadows, among scabious, plantain, honeysuckle, &c.; rest exposed in the sunshine | S. myopæformis in stems of apple, pear, plum, hawthorn ; chiefly old or unhealthy trees | |
| E. Medea, from Sept., moorland poa, and other grasses | " culiciformis ...in birch and alder | |
| S. Megæra, from Sept., grasses " hyperanthus from Aug., grasses ; may be found at night among long grass near woods, &c. | " formicæformis from Sept., in osier stumps ; the larva-hole, or the gnawings therefrom are often visible; the larva is best sawn out | |
| P. Phœas, from Oct., sorrel, dock, ragwort | " chrysidiformis inside r. of sorrel and dock ; at Folkestone and Eastbourne, and probably other places on the S. & E. coasts ; supposed to be 2 yrs. feeding | |
| L. agestis, from Sept., <i>Erodium circutarium</i> [&c.] | " cynipiformis in the bark of un-healthy-looking oaks and old stumps | |
| " Alexisrest harrow, trefoil, | " tipuliformis ...from Oct., in the stems of old currant bushes | |
| " Adonis.....from Oct., <i>Hippocratea comosa</i> , &c. | | |

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- S. scoliæformis in birch ; seems to prefer the stem of a tree which has been felled
- " sphægiformis in young suckers of alder, where the old tree has been cut down. The larva eats a gallery up the centre of the shoot nine or ten inches, then turns aside, and eats through the bark, where it assumes the pupa state
- " asiliformis ...in r. of poplar and ash. Wait till the pupae are bedded near the entrance of the burrow
- " apiformisfrom Sept., in stems of poplar ; often 2 yrs. feeding. Wait till the pupae are bedded near the entrance of the burrow
- M. arundinis.....in stem of common reed ; often causes the plant to look unhealthy
- H. hectusfrom Aug., in roots of brake fern ; two seasons feeding
- " lupulinusfrom Aug., in roots of dead nettle, &c.
- " velleda...from Aug., in roots of brake fern, &c.
- " humulifrom Aug., in roots of burdock, nettle, dead nettles, &c.
- Z. nubigenafrom July, thyme
- L. pygmæola ...lichens, among moss
- C. plantaginis ...from Sept., plantain, violet ; best found at night
- " villicafrom Sept., chick-weed, furze, and other plants
- A. fuliginosa .. from Sept., dock, nettle, plantain, borage, &c., often hides under the leaves
- L. chrysorrhæa...from Sept., sloe, hawthorn, &c.
- B. roborisfrom Sept., hawthorn, dogwood, bramble, broom, heath, &c.
- " quercusfrom Sept., bilberry, &c. ; also eats dogwood
- O. potatoriafrom Sept., coarse grasses
- E. apicarianut, poplar, willow, alder
- A. prunariafrom October, sloe, beech, broom, bramble, sallow, hawthorn, plum, &c.
- E. fasciaria ...from Sept., Scotch fir
- P. syringaria ...from Sept., lilac, privet, elder, honeysuckle ; may be found at night hanging from its food
- C. lichenaria.....from Sept., lichens, on oak
- B. repandata.....bramble, sloe, birch, plum, spindle, and upon almost all sorts of underwood
- " rhomboidaria from Sept., ivy, birch, oak, plum, rose, lilac, elder, &c.
- " perfumaria ...ivy, lilac, clematis, &c.
- " abietariafrom Sept., larch, spruce, and Scotch fir
- " roborariafrom Sept., oak
- G. obscurata.....from Sept., Potentilla reptans, Poteriam sanguisorba, thyme, grass, sun cistus, &c. ; s. found concealed by day among stones
- H. auroraria.....from Aug., plantain
- A. candidata ...hornbeam
- A. rubricatafrom Aug., —— * will eat knotgrass, dandelion, Lotus corniculatus, Medicago lupulina, Thalictrum minus
- " scutulata from August, Anthriscus sylvestris, fl. and dandelion, preferring the withered leaves
- " bisetatafrom Aug., dandelion ; will also eat knotgrass and withered bramble
- " trigeminata .. from July, some low plant ? will eat knotgrass
- " osseatafrom Aug., dandelion, &c.
- " interjectaria ..from Aug., dandelion, scarlet pimpernel, withered
- " ornata, s.from Sept., thyme
- " remutatafrom August, low plants ? will eat knotgrass
- " fumatafrom Aug., heath

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- A. strigilatafrom Aug., *Stachys sylvatica*, &c.
 " *aversata* ...from Sept., primrose, nut, gooseberry, *Geum urbanum*, &c.
 " *degeneraria* ...from Aug., ____?
 will eat knotgrass, bramble, *Cerastium*, *Veronica*
 S. *clathrata*from Oct., saintfoin, lucerne, &c.
 S. *belgariaria*from Aug., heath ; may be found at night on heaths, &c.
 F. *pinetaria*bilberry, &c.
 A. *ononaria*rest harrow
 O. *filigrammaria* bilberry and sallow
 L. *didymata* ...*Chæropohyllum temulum*, cowslip, &c.
 " *cæsiata*from Sept., bilberry and whortleberry
 " *olivata*from Oct., *Galium mollugo* ; very sluggish
 E. *tenuiata*in sallow catkins
 " *rectangulata* apple and crab, buds and fl.
 " *debilitaria*whortleberry ; in curled-up leaves
 T. *variata*Scotch fir, larch, &c.
 " *firmata*larch and Scotch fir
 M. *montanata* ...from Oct., primrose
 C. *quadrifasciaria* hawthorn, white dead nettle, knapweed, &c.
 C. *bilineata*grasses, chickweed, dock; hides under stones, at r. of herbage, &c., by day
 P. *lignata*from Sept., *Galium palustre*, &c.
 C. *russata*from Oct., strawberry, birch, hawthorn, sallow, &c.
 " *dotata*currant
 E. *palumbaria* ...from Aug., broom, &c.
 " *lineolata*, s. ...*Galium verum*
 A. *plagiata*from Oct., *Hypericum perforatum*
 B. *glandifera* ...from Sept., lichens, on walls ; local. Both glandifera and perla build a cocoon of silk and earth, mortar, or crum- bled stone, like a blister on paint, in which they live, except when they come out to feed, in the night, or early morning, especially in wet weather, when the lichens are soft.
 B. *perla*from Sept., lichens on walls
 L. *conigera*couch grass, & other grasses
 " *lithargyria* ...grasses, chickweed, plantain, &c.
 " *littoralis*from Aug., *Ammophilus arundinacea*, on the coast ; burrows seven or eight inches in the sand. Will also eat *Carex*
 " *pudorina*grasses, reed
 " *comma*grass, &c.
 " *straminea*coarse grasses and common reed, in damp meadows, and borders of streams
 " *impura*from Oct., *Carex*, & *Dactylis glomerata*, inside the stem
 " *pallens*from October, *Deschampsia cespitosa*
 S. *ulvæ*from Sept., common reed
 N. *neurica* ...in stems of common reed ; a small hole is visible in the stem of the plant, tenanted by a larva
 " *lutosa*from Oct., in stems of common reed, near the r.
 X. *rurea*generally on grasses
 " *polyodon* ...low plants
 " *hepatica*, b. ...from Aug., grasses, chickweed, &c.
 A. *australis* ...from Oct., *Cichorium*, *Poa annua*, and other plants
 H. *popularis*grasses, amongst the roots, &c.
 P. *leucophaea* ...from Oct., tufts of grass on commons, and in woods
 C. *Cytherea*from Sept., grass, in dry and stony places
 L. *cespitis*grasses ; hides at r. by day
 A. *geminata*from Aug., grasses ; hides at r. by day

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- A. unanimis*from Sept., grasses, at the base of willows, &c.; hides at r. by day
 " *fibrosa*in fl. stems of yellow flag
 " *'oculea*grasses, principally *Dactylis glomerata*, feeding on the undeveloped fl.
M. strigilisgrasses, and other plants
M. furunculain stems of *Festuca*
G. trilineagreater plantain and other plants; hides among the r. by day
C. alsinesfrom Sept., dock, chickweed, greater plantain. In feeding be careful to give the same food as found on, as the larva is easily injured by shifting its food
 " *blanda*chickweed, &c.
 " *cubicularis*from Sept., in corn ricks, on grass, pulse, and grain
A. valligerafrom Oct., grasses, r.
 " *segetum*from July, in r. of turnip, &c.
 " *corticea*from Sept., Chenopodium, and other plants
 " *agathina*heath
 " *porphyrea* .. from Aug., heath
 " *ravida*thistles, dandelion, &c.
 " *lucernea*harebell, dandelion, &c.
 " *Ashworthii* ...from Sept., fescue grass, hawkweed, sun cistus, thyme, heath, harebell, &c.
T. ianthinafrom Aug., broom, chickweed, and other low plants
 " *fimbria*from Oct., primrose and other low plants; also birch, oak, sallow, broom; concealed by day; found feeding at night
 " *interjecta*dock, mallow, grass, &c.
 " *subsequa*from October, low plants
 " *Orbona*from Aug., sallow buds, when young; afterwards on broom and low plants
T. pronubafrom Aug., dock, & various other plants [plants
N. depunctasorrel, and other low plants, hawthorn, sallow, &c.
 " *plecta*low plants
 " *c-nigrum*from Sept., low plants
 " *triangulum* ...sallow, bramble, &c.
 " *rhomboidea*...from Sept., chickweed, sallow
 " *brunnea*sallow
 " *festiva*from Aug., violet, sallow, foxglove, &c.
Dahliafrom Sept., low plants; in mild winters s. feeds up without hibernating
 " *umbrosa*from Sept., dock, and other low plants
 " *baia*low plants
 " *xanthographa* from October, plantain; hides under stones, &c.
O. lotawillow, sallow
 " *macilenta*.....beech, and s. birch
A. pistacinabuttercup, dock, &c.
 " *lunosa*from Oct., grasses, more especially in elevated places; concealed under stones
X. ceragosallow catkins; later on low plants
 " *silago*sallow catkins
 " *ferruginea* ...sallow and aspen buds, wytch elm seeds
C. xerampelina from Dec., on ash ; may be found, at dusk, crawling up ash trunks; concealed in chinks of bark, and among grass at the base of the tree, during the day; very retired and sluggish in its habits, and feeds sparingly on ash shoots and hawthorn [leaves
T. subtusapoplar; between the
C. trapezinaoak, birch, hornbeam, &c. ; also other caterpillars
 " *pyralina*plum, pear, &c.
P. chihawthorn, sallow, tea tree, dock, lettuce, hawkweed, Sonchus, &c.

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APRIL

- D. templi *Heracleum sphondylium*, inside the stem and r.
 E. lutulenta from Oct., *Lithospermum arvense*, and other low plants
 " *viminalis* sallow
 " *lichenea* from Nov., ragwort and other low plants, on the coast
 P. meticulosa ... from Nov., groundsel, and various low plants
 " *empyreana* from Nov., pilewort, &c.
 A. herbida from Aug., dock, and other low plants
 " *occulta* primrose, plantain, and other low plants ; can only be found in the evening
 " *nubulosa* from Sept., sallow, hawthorn, birch, &c.
 " *tincta* from Sept., grass, and low plants ; also birch, and other trees
 " *advena* from Aug., various plants
 C. vetusta poplar, and various meadow and marsh plants
 " *exoleta* scabious, campion, rest harrow, dock, *Eryngium maritimum*, turnip, asparagus, &c.
 X. furcifera alder, birch
 A. myrtilli, s. from Aug., heath ; gently clear away the bottom of the heath, and shake it into the net
 P. chrysitis from July, burdock, thistle, nettle, dead nettle, &c.
 " *iota* nettle, dead nettle, honeysuckle, groundsel, &c.
 " *gamma* nettle, hop, and most low plants [plants
 M. typica from Sept., low
 " *maura* from Sept., ivy, dock, chickweed, &c.
 C. sponsa oak
 H. proboscidalis from July, nettle
 H. derivalis from Aug., among dead oak leaves
 " *barbalis* from Sept., birch catkins
- H. tarsipennalis from Aug., raspberry? Will eat knotgrass and sallow
 " *cribralis* from Aug., sallow, *Carex sylvatica*, and *Luzula pilosa*
 A. flexula lichen
 P. farinalis straw, corn, &c.
 A. pinguinalis ... greasy horse cloths, rubbish in houses, &c.
 E. cingulalis from Sept., *Salvia pratensis*
 A. nemoralis ... *Chrysosplenium alternifolium*
 C. leninalis aquatic, in a case filled with air, feeding beneath the leaves (fronds) of duckweed
 P. stratiotis ... aquatic, on *Callitricha verna*, *Stratiotes aloides*, &c.
 H. nymphæalis aquatic, in a flat case, under the leaves of yellow water lily, and *Potamogeton pectinatus*
 " *stagnalis* aquatic, on *Potamogeton*
 B. terrealis from Aug., golden rod, fl.
 " *asinalis* from Oct., madder
 E. crocealis *Inula dysenterica*, between the leaves
 S. olivalis ground ivy, and other low plants, in a web under the leaves
 " *prunalis* ... sloe, and low plants
 S. ambigualis ... moss
 " *mercurella* ... the mosses *Hypnum elegans* and *Jungermannia dilatata*
 " *resinea* the lichens on ash, *Stigoneura mammillosa*, and *Oscillatiora autumnalis*
 C. hortuellus ... moss
 C. phragmitellus ... from Oct., reed
 A. lotella in the stem and r. of *Festuca ovina*, and *Aira canescens*, in a silken tube
 P. abietella from Sept., young shoots of Scotch fir, and decayed wood and cones

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APRIL

- P. palumbella ...from Sept., polygala
 T. Fosterana ...ivy, honeysuckle, &c.
 P. Lecheana ...sallow, willow, honey-suckle, oak, &c.
 P. capræana.....sallow
 " gentianafrom Nov., in teazle heads
 S. roboranain rose shoots
 S. conchana ? ...Galium, alder, &c.
 E. mygindana ...in shoots of Myrica and Vaccinium, on northern moors
 " rufanasun cistus
 " arbutanaVaccinium, twisted shoots
 S. subjectana ...various plants
 " virgaureana ...various plants
 B. lanceolana ...in stems of rushes
 P. unguicana ...heath
 " uncanaMyrica gale, heath lundanatrefoils, and vetches
 G. ramanabuds of birch
 P. immundana ...in leaves of birch, and alder
 " Demarniana catkins of birch
 H. crucianain sallow shoots
 P. bilunanacatkins of birch and alder
 E. cirsianafrom Sept., in thistle and knapweed stems, in woods
 " Pfugiana.....from Sept., in thistle and knapweed stems, in open places
 " Brunnichiana in stems of coltsfoot
 " turbidanar. of butter burr (?)
 " scenianafrom Oct., in r. of Artemesia
 " grandævana...in r. of Petasites and Tussilago
 S. Wœberana ...from Oct., under bark of fruit trees
 C. strobilana ...in fir cones
 " hercyniana ...spruce fir
 " ustomaculana Vaccinium
 R. turionana.....in shoots of Scotch fir
 " pinivorana ...in shoots of Scotch fir
 S. coniferana ...under bark of Scotch fir
- S. Leplastrierana in stems of cabbage
 D. Petiverana ...r. of Achillea millefolium
 " simpliciana ...in r. of Artemesia vulgaris
 " acuminatana ox eye
 " consortana ...shoots of chrysanthemum
 C. nimbaniaunder moss, and bark of beech
 X. Fabriciana ...nettle, pellitory, &c.
 E. udanain stems of Alisma plantago
 " rupicolana ...hemp agrimony (?)
 " roseanafrom Oct., in seeds of teazle
 X. Zoeganain r. of Scabiosa calumbaria, Centaurea nigra, &c.
 C. tesseranafrom Sept., in r. of Picris hieracioides
 T. pseudo-bombycella from October, lichen on oak, beech, &c., in a long, slender case
 P. opacellain a case on fallen fir logs, probably feeds on lichen, grass, heath, furze, &c.
 S. triquetrella ...on old palings, on moors, marshes, &c., in a triangular case
 P. Verhuellella in the indusia of Asplenium ruta-mutaria and hartstongue
 D. marginepunctella in a case on trees, &c.
 X. melanella ...on lichens, in a case on trees, and palings
 S. carpinetella ...fungi on rotten wood
 " cloacellarotten wood
 T. tapetella.....woollen cloth, &c.
 " albibipunctella...rotten sticks
 " pellionella ...in carpets, cloth, feathers, &c.
 " ganomella ...from Oct., in birds' nests
 " biselliellafrom Oct., in bird skins, hair seating, &c.
 L. perochraceella...ants' nests
 L. prælatella ...from Sept., in a flat case on underside of wild strawberry

LARVÆ]**APRIL**

- L. rubiellain shoots of raspberry
I. masculella ...from June, rose, &c.
" capitellain the shoots of currant bushes
M. Allionella ...honeysuckle
" fastuosella ...nut
A. viridella (?)...oak
N. scabiosellus...from July, various low plants
" cupriacella .. from July, Sedum reflexum, S. album, &c.
E. Messingiella Cardamine amara
P. porrectella ...Barbara vulgaris,
Hesperis matronalis, in a web on the underside of the leaves
H. harpellahoneysuckle
D. assimilella ...broom, between united twigs
G. velocella ...Rumex acetosella, towards the r.
" diffinellaRumex acetosella, towards the r.
" arundinetella Carex riparia
" affinellaunder moss on old walls
" domesticella in moss on old walls
" vulgellahawthorn, between united leaves
" tricolorella ..in seeds and shoots of *Stellaria*
" instabilella ...*Plantago maritima*
" Mouffetella ...in shoots of honeysuckle
" tenebrella ...from Sept., in r. and lower stem of Rumex acetosella
" anthyllidella shoots of *Anthyllis*
P. neuropterella from Oct., in heads of *Cirsium acaule*
M. ustulella from August, nut, birch, lime, maple, hornbeam, &c.
P. bicostellafrom Nov., *Erica cinerea*
H. bracteella ...in decayed wood
D. sulphurella ...in rotten wood
CE. fusco-aurella in dead sticks
" pseudo-spretella from Oct., various kinds of dried fruit, dried peas, and other seeds; also hams
- CE. flavifrontella...from Sept., in a case on beech
B. grandipennella...furze
" fusco-aeneella...among sun cistus
" chenopodiella...Chenopodium and Atriplex
R. Erxlebenella *Tilia*
G. Haworthella *Eriophorum*, seeds
" schaenicella in seed-heads of *Schenanus nigricans*
D. ocnerostomella in dried stems of *Echium vulgare*
A. ephippella ...in shoots of wild cherry
" glauclella ...in bark of oak, horse chesnut, &c.
" abdominalla...in needles of juniper
" pygmæella ...in sallow catkins
" Gedartella ...in bark of alder, birch, &c.
" Brochella.....birch shoots
" arceuthinella in shoots of juniper
" aurulentella ...juniper, in the leaves
C. farinatella ...in leaves of Scotch fir
O. pinariella...Scotch fir, in the leaves
G. tringipennella in plantain
" auroguttella.. willow herb, and hypericum
" ononillarest harrow, and clover
C. lixellagrasses
" pyrrhulipennella from Oct., heath
" discordella ...from Oct., *Lotus corniculatus*
" genistæcolella from Oct., *Genista anglica*
" lineolella*Ballota nigra*
" juncicolella ...from Oct., heath
" cæspitiella...from Sept., rushes, seeds
" larinellafrom Sept., larch
" albitarsella ...from Nov., *Origanum* and *Glechoma*
" gryphipennella from Sept., rose
" vitisellafrom Nov., whortleberry
" viminatella ...from Sept., sallow and osier

LARVÆ]**APRIL**

- C. solitariella ...from Oct., *Stellaria holostea*
 L. paludicolella *Epilobium hirsutum*
 " *miscella*sun cistus
 C. Linneella.....from Nov., under
 bark of lime trees
 " Schrankella...*Epilobium alsinifolium*
 A. ærata from Oct., in galls
 on knotgrass
 S. Brunnichella *Melissa clinopodium*
 E. Gleichenella in *Luzula* and *Carex*
 " magnificella...*Luzula pilosa*
 " apiculatella from Oct., in *Aira*
 " albifrontella...in many grasses
 " luticomella ...in stems of *Dactylis*
 glomerata
 " poella *Poa aquatica*
 " kilimunella ..*Carex*
 " cinereopunctella from Sept., in
 Carex glauca [pilosa
 " trapeziella ...from Oct., in *Luzula*
 " Gregsonella ...in a *Poa*
 " nigrella *Poa trivialis*, &c.
 " subnigrella ...*Bromus erectus*
 " perplexella ...in *Aira cespitosa*
 " Bedellella ...*Avena pratensis*
 " zonariella.... in *Aira cespitosa*
 " gangabellla ...from Nov., *Dactylis*
 glomerata
 " tæniatella.....from Sept., in *Brychypodium sylvaticum*
 " Megerella ...from Sept., in *Brychypodium*, *Bromus*, *Aira*, &c.
- E. cerussellain reed
 " biatomella ...in *Carex glauca*
 " rufocinerella in *Holcus mollis*
 " cygnipennella *Dactylis glomerata*,
 and other grasses
 " paludum, e....*Carex intermedia*,
 C. paniculata, and C. paludosus
 " serricornella...*Carex*
 T. dodonælla .. from Oct., in oak
 L. lantanella ...from Sept., *Viburnum lantana*
 " vacciniella ...in whortleberry
 " Messaniella ...in oak, evergreen
 oak, chestnut, hornbeam
 " trifasciella ...in honeysuckle
 " scabiosæcolella in r. leaves of
 Scabiosa calumbaria
 C. Partifoliella under bark of broom
 B. aurimaculella on *Chrysanthemum*
 and ox eye
 " cristatella ...from Sept., on yarrow
 " artemisiella ...*Artemesia campestris*, and yarrow
 N. Weaverella...from Oct., in whortleberry
 T. immundella...beneath bark of broom
 P. trigonodactylus in coltsfoot stems
 " plagiодactylus...*Scabiosa*, and *Veronica chamædrys*
 " osteodactylus from Sept., golden
 rod
 " ariduson the Continent, on
 fl.-buds of *Coris monspeliensis*

PUPÆ]

A new "spurt" will be given to the operations of the pupæ hunter, now that he begins to find species which have only just changed. A glance down the list will show that he may, by diligent searching, find the chrysalids of some of the early summer butterflies, enabling him to secure them in all their glory, ere they

"hover on the flowers—aerial things,
 With little rainbows flickering in their wings."

- | | |
|--|--|
| <p>P. Machaonon stems of <i>Peucedanum palustre</i>; in fens
 L. sinapisfrom Oct., on stems
 of <i>Vicia cracca</i>, and <i>Orobus tuberosus</i>; in woods</p> | <p>P. brassicæ ... }
 " rapæ } on palings, walls, &c.
 " napi }
 A. cardamines ...on stems of grass, &c.</p> |
|--|--|

PUPÆ]

APRIL

- A. Euphrosyne...suspended by the tail among dog violet, &c.
- M. Artemissuspended under a leaf, among scabious, plantain, &c., in damp meadows
- " Cinxia, e.suspended among plantain, &c.
- S. Ægeria, b. ...on grass stems, &c.
- L. Alsusamong Anthyllis vulneraria
- S. ocellatussub., at willows, poplars, &c.
- " populisub., at poplars, willow, &c. [beech
- " tiliaesub., at elm, lime,
- C. ligniperra ...at various trees, spun up, under bark; s. sub.
- L. asellusspun up, on a leaf
- A. mendicaunder moss on trees bordering ditches
- " lubricepeda } spun up, on trees,
" menthrasti } palings, &c.
- " urticæunder moss on trees
- O. pudibunda ...in dead leaves, under moss, &c.
- B. rubialong cocoon, among coarse grass, &c.; s. 2 years in pupa
- S. carpinicocoon among leaves, heath, grass, &c.; s. 2 years in pupa
- S. lunariafrom Aug., at sloe, oak, nut, &c.
- O. bidentata.....from Sept., under moss, on various trees
- A. betulariafrom Oct., sub., at oak, elm, birch, &c.
- H. abruptaria .. from Sept., spun up, on twigs, or branches
- T. consonaria ...from Oct., under moss, at r. of beech, &c.
- " punctulata ...from Oct., under moss, on birch and alder, or in bark crevices
- I. lacteariaspun up, among leaves of oak, and birch
- N. viridatabetween united leaves of hawthorn and bramble
- E. poratafastened to leaf of oak
- E. punctariafastened to leaf of oak, or birch
- " trilinearia.....from Sept., fastened to leaf of beech
- " pendularia ...from Aug., fastened to leaf of birch
- E. separatafrom Oct., among moss, &c., on alder
- C. exanthemaria . spun up, under leaves of sallow and alder
- C. temeratafrom Sept., woods, &c., near sloe, wild cherry, and probably buckthorn
- M. lituratafrom Oct., in open places, and on the margins of fir woods, at 1 in. to 2 in. deep, rarely within 2 ft. of the tree
- N. pulveraria ...from September, in withered sallow leaves, &c.
- F. carbonaria ...from Aug., among dead leaves of sallow, and birch
- L. adustatafrom Sept., in a slight cocoon just beneath the surface, among spindle
- E. albulatafrom Oct., within the spun-up sepals of yellow rattle
- " decolorata ...from July, about Lychnis dioica
- E. venosatafrom July, about Silene, and Lychnis
- " consignata ...from Sept., probably under moss, and loose bark, in apple orchards
- " pulchellata ...from Sept., among the dead fl. of foxglove
- " isogrammata about Clematis vitalba
- " fraxinata from end of Aug., on ash, under moss, and loose bark
- " nanataabout heath
- " campanulata from Sept., sub., about Campanuleæ
- " minutataabout heath
- " assimilata.....from September, in crevices about currant, and hop
- " exiguafrom Aug., about oak, &c.

LARVÆ]

APRIL

- Y. ruberata*under loose bark of sallow, alder, &c.
M. ocellataamong *Galium*; spun up, near the ground
 " *subtristata*from Sept., sub., near *Galium*
 " *galiata*sub., near *Galium*
A. sinuata.....in earthen cocoon; on the ground, among *Galium*
C. munitataspun up, on moss, on tree trunks
 " *unidentaria*among bedstraw, & sweet woodruff, in a slight web, on the surface of the ground
 " *sagittata*spun up, about *Thalictrum*, or on the ground near; in fens
 " *suffumata*.....among *Galium* and ragwort
E. lineolata ... cocoon attached to *Galium verum*, on coast sand-hills, below the surface
C. obliquaria ...from Aug., among broom
P. hamula.....oak, birch; between united leaves
D. bicuspisspun up, on birch trunks in the S., alder in the N.
 " *furcula*spun up, on trunk of willow or sallow
 " *bifida*spun up, on trunk of poplars
 " *vinula*spun up, on trunk of willows, poplars, and sallow, three or four feet from the ground
S. fagispun up, among leaves of beach, oak, elm, birch; s. at r.
P. bucephala ...sub., at various trees
C. reclusaspun up, among dead leaves of sallows, poplars, willows
P. palpina.....at willows, and poplars, on edges of streams, or under sods near
N. camelinasub., at various trees
 " *cucullina*sub., at maple and sycamore
 " *carmelita*sub., at birch
 " *dictæa*at poplars and willows, or under sods near
- N. dictæoides* ...sub., at birch
 " *dromedarius* sub., at birch, alder, nut
 " *zizcac*sub., at poplars, sallow, willows
 " *trepida*.....sub., at oak, in a tough cocoon
 " *Chaonia*sub., at oak
 " *Dodonea* sub., at oak and birch
T. batisnear bramble and wild raspberry
C. duplarisbetween united birch leaves
 " *fluctuosa*among birch leaves
D. Orionat birch, and oak, in a cocoon of gnawed bark, or rotten wood
A. tridensspun up, in crevices of bark, at hawthorn, sloe, rose, willow, sallow, mountain ash
 " *psi*in bark crevices of various trees
 " *leporina*in excavations in the bark of birch, poplar, alder, sallow
 " *aceri*spun up, among fallen leaves, and under loose bark of sycamore, horse-chestnut, maple, birch, and s. oak
 " *megacephala* under loose bark of poplar
 " *stringosa*.....among dead leaves of hawthorn, or rubbish, or decayed wood; s. sub.
 " *alni*between leaves of various trees, or inside bramble sticks
 " *ligustri*.....spun up, under moss, stones, &c., near ash and privet; also sub.; also found under the top stones of walls against the tree
 " *ruminis*spun up, in crevices of trees, palings, walls, &c.
 " *menyanthidis* spun up, near bilberry, heath, sweet gale, &c.
A. putrissub., at elm
D. pinastriin a cocoon on the ground, among dock, sorrel, &c.

PUPÆ]**APRIL**

- M. albicolonsub., near Atriplex, Chenopodium, lettuce, &c.
 A. segetum, s....sub., among Cruciferæ, grass, &c.
 X. rureaunder moss, on stumps
 A. unanimis.....under bark of willows, in damp places, and among decayed willow wood
 C. Morpheus ...spun up, in a leaf, or an earthen cocoon, attached to food plant
 R. tenebrosa.....among violets, and other low plants; a little beneath the surface
 A. Putafrom Jan., near r. of dandelion, lettuce, carrots
 D. carpophaga...sub., near Silene, and Lychnis, on the coast ; found by raking sandhills
 " capsophila ...from June, a constant succession, sub., about Silene maritima, on the coast
 " capsincola ...from August, sub., near Lychnis
 " cæsiafrom August, about Silene maritima, on the coast
 H. serenasub., near Sonchus, and lettuce
 " adustasub., near sallow
 " glaucasub., near sallow, and birch
 " oleraceasub., near elm, nettle, dock, &c., also in kitchen gardens
- H. thalassina ...sub., near honeysuckle, sallow, broom, &c.
 C. verbasci } sub., in earthen { cocoon, near mullein and figwort
 " scrophulariae } s. 2 yrs. in pupa
 " lychnitisin earthen cocoon, near white and black mullein, s. 2 yrs. in pupa
 " asterisnear golden rod, &c.; s. 2 yrs. in pupa
 " gnaphaliinear golden rod
 " absynthiinear wormwood
 " umbratica ...sub., near Sonchus, &c.
 H. marginata ...sub., near Ononis procurrens
 " dipsaceaamong melilot, and probably Silene otites, and Linaria
 A. myrtillispun up, in heath
 E. venustulaat r. of Tormentilla reptans, and grass [ground
 B. argentulaamong grass, on the A. urticæspun up, among nettle leaves
 " triplasiaspun up, among nettle leaves, hop, &c.
 P. æneaamong Polygala vulgaris
 H. barbalis, e....in a loose cocoon, among oak, and birch
 E. sambucalis ...spun up, in crevices, in palings, walls, &c., near elder
 G. canellaamong Salsola kali

IMAGOS]

With the lengthening days, and warmer sunshine, the number of insects on the wing continues to increase ; and amongst those which are due this month are several somewhat rare species. Theallows constitute an irresistible attraction on mild evenings, when we are sure to find that many moths have

" from far and nigh
 Sped to the lure."

The hibernating butterflies, as well as some which have freshly emerged, are also occasionally attracted to these blossoms in the daytime, when we are cheered by

" amber sunbeams slanting down the vale."

IMAGOS]

APRIL

But the only rare species is *V. Antiopa*, which, however, is but seldom seen in the spring. Eggs may sometimes be obtained from the captured ♀ at this and other periods of the year. The freshly emerged ♀ of many species, particularly the Bombyces, can be used to attract the ♂, and large numbers are sometimes thereby taken. Beating thatch is a mode of capture often resorted to, and at this season many moths may be beaten out, particularly hibernating Geometræ. As the season advances,

"and vernal airs breathe mild,"

large numbers of *Tineæ* may be thus captured. *Depressariæ*, and some other species, seem much commoner now than before hibernation.

In the following list is given the species ordinarily to be found this month, including those which have hibernated, but which have not generally before put in an earlier appearance in the new year.

- L. sinapis, e. ...woods ; does not travel quietly if boxed
- P. brassicæ, e. ...gardens, &c.
- " rapægardens, &c.
- " napigardens, &c.
- A. cardamines ...fields, &c.
- S. *Ægeria*, e. ...woods and shady lanes
- T. rubi, m.woods, &c.
- P. Phlæasfields and lanes, coast sandhills, &c.
- L. argiolus, m.amongst holly, and at fl.
- A. mendica, e....
- D. corylibeech woods ; may be beaten
- E. lanestris, b. ...at rest on hawthorn, &c.
- L. ilicifoliaat rest on moors ?
- E. versicolora ...♂ flies by day ; ♀ generally not till evening. A bred ♀ in a roomy box is useful for attracting the ♂ of most bombyces
- S. carpiniheaths and open places ; fly in the sunshine
- R. cratægata ...in hedges, &c.
- S. illunaria, b.
- " lunariawoods ; comes to l.
- " illustraria, e...woods
- O. bidentata ...rests on tree trunks
- B. hirtaria.....in the squares of London
- A. prodromaria, b. at rest on trees, &c.
- H. abruptaria, e. on palings, trees, &c., and in gardens ; comes to l.
- T. crepuscularia...on trees
- " biundularia ...on trees and palings
- E. pendularia ...beaten from trees
- C. temerata, e.among sloe, &c.
- A. pictariaat sloe fl.
- N. pulveraria, e.
- F. carbonaria, e.
- A. æscularia.....on trees, &c.
- L. multistrigaria, may be found towards the bottom of palings, on the grass, &c., being turned away
- E. helvetica ...this species s. appears much earlier. Most of the genus fly just before dusk
- " irriguataon birch trunks
- " pimpinellata
- " vulgata.....
- " dodoneata ...flies in the early morning sunshine
- " abbreviata ...
- " pumilata
- " coronataon trees and palings
- L. hexapterata ...woods
- " lobulataon Scotch fir trunks, and gate posts, &c.
- " polycommata
- T. simulata
- M. fluctuataon walls, palings, and in gardens
- A. badiataat sallows, and flying over hedges at dusk

IMAGOS]**APRIL**

- A. derivata*
P. polygrammata, b. damp meadows;
 very local
 " *suffumata*flies at dusk
P. lacertulabeaten from birch
D. unguicula, e., among beech; flies
 in the day time
D. bicuspisat rest on tree trunks
P. nubeculosa ...birch woods in
 Perthshire
C. curtula
N. carmelitaon birch trunks, and
 palings near. Flies in the sun-
 shine; may be taken at sallows;
 and is attracted by puddles
 " *trepida*, e.on oaks
Chaonia, e.
C. ridensat l., at sugar, and
 at rest on tree trunks
X. conspicillaris, at rest on trees;
 also beaten, and has been taken
 at sugar
T. piniperda....at sallows, and at
 rest on fir trees
T. gothica.....at sallows. The
 notes under March in reference
 to this genus also apply to
 April. Laburnum, and other
 early fl. also attract the genus
 " *gothacina*.....a var. of *gothica*,
 which is found in Finland and
 Lapland, and has been taken
 in Morayshire, &c.
 " *leucographa*....
 " *rubicrosa*
 " *instabilis*remarkable vars. of
 this species, and also of *stabilis*
 often appear
 " *opima*
 " *populeti*
 " *stabilis*
 " *gracilis*
 " *miniosa*
 " *mundula*
 " *cruda*
V. oleagina
P. meticulosa. This species occurs
 all the summer, there appearing
 to be, as is the case with several
 other common species, a suc-
 cession of broods, but it is
 most abundant in Sept. and
 Oct.
X. lithorizaat sallows, and on
 trees, walls, &c.
C. verbasci
 chamomillæ, s. at rest, on rails, &c.
B. partheniasin and near birch
 woods; flies on sunny morn-
 ings round sallows, &c.
 " *natha*on aspens, flies in
 the sunshine round sallows, &c.
P. gamma, to Oct. } fly in the sun-
P. ænea, e.} shine, & hover
 " *notha*from Aug.
S. Revayana ...from Sept., woods
L. literanaon oak trunks
 niveanaat sallows
P. mixtanafrom July, moors
S. pauperana ...among wild rose
C. musculanahedges
P. rusticanamoors, fens, mosses
P. comptana....chalk downs, &c.
P. tetraquetrana, among birch
 " *immundana*...among birch and
 alder
 " *crenana*from Sept.; most
 heaths in the N.
C. splendidulana, on oak trunks
 " *pygmæana*, b. among spruce
 vaccinina ...
H. fimbriana ...oak woods, in the S.
T. hyemanaoak woods
L. salicellaamong dog rose?
D. fagellaon trees
E. avellanella ...
Steinkellneriella
S. triquetrella ...moors in the N.
 " *inconspicuella*, b. at rest on pa-
 lings, &c.
I. Zinckenella, e. among birch.
M. purpurella ...among birch and
 Scotch fir; may be obtained
 by sweeping the twigs; most
 of the genus fly on sunny
 afternoons, and at other times
 may be shaken from trees
 " *salopiella* ...among birch
 " *semipurpurella*, among birch

IMAGOS]**APRIL**

<i>M. unimaculella</i> among birch, and	<i>G. velocella</i> , e....
Scotch fir	" <i>ericetella</i> , e....moors and heaths
" <i>Sparmannella</i> , among birch	" <i>junctella</i>
" <i>subpurpurella</i> , among oak	<i>D. sulphurella</i> ...
" <i>fastuosella</i> ...among nut	<i>B. incongruella</i> ..on heaths and moors,
<i>A. cuprella</i> , e....at sallows, flying in	hides among withered sprigs of
the sunshine	heath when disturbed
<i>S. comptella</i> , e. on hedges	<i>A. autumnitella</i> , from Aug.
" <i>pyrella</i> .....among hawthorn	<i>G. fuscoviridella</i>
hedges	<i>T. sericiella</i>
<i>Y. vigintipunctella</i> , e. among <i>Sedum</i>	<i>O. pinariella</i> , h.? among Scotch fir
<i>telephium</i>	<i>Z. hepariella</i> ...from Aug.
<i>P. xylostella</i> .....among <i>Cruciferæ</i>	<i>G. stigmatella</i> ...from Aug.
<i>Dalella</i> .....on moors	" <i>stramineella</i> ...from Aug.
" <i>radiatella</i>.....from Aug.	" <i>populella</i> ...from Sept.
<i>P. caudella</i> .....from Sept., on pa-	" <i>phasianipennella</i> , from Sept.
lings, &c., flies over spindle	<i>C. cuculipennella</i> , from Sept.
bushes after dark	" <i>citrinella</i> .....from Oct.
<i>D. arenella</i> .....from Aug.	<i>O. anglicella</i> , e. among hawthorn
" <i>Alstræmeriella</i> , from Aug.	and sloe
" <i>ciniflonella</i> ...Kannoch	<i>C. chærophyllella</i> , from Oct.
" <i>capreolella</i> ...from Aug.	<i>L. decorella</i> .....from Oct.
" <i>conterminella</i> , from Aug.	<i>C. flavicapitella</i> . among hawthorn
" <i>aplanella</i> ...from July, flying	<i>E. rufocinerella</i> ..among grass
over hedges	<i>L. Bremiella</i>
" <i>chærophyllivorella</i> , from Aug.	" <i>alnifoliella</i> ...

The following hibernated species may also be met with this month, but their condition is often so "seedy" that they are of little value as specimens, unless eggs are desired :—

C. Edusa, *C. Hyale*, *V. c-album*, *V. urticæ*, *V. polychloros*, *V. Antiopa*, *V. Io*, *V. Atalanta*, *V. cardui*, *M. stellatarum*, *E. fasciaria*, *T. variata*, *C. flaviata*, *S. dubitata*, *C. psitticata*, *C. miata*, *C. silacea*, *A. auricomæ*, *L. lithargyria?* *A. puta*, *A. suffusa*, *A. saucia*, *C. vaccinii*, *C. spadicea*, *C. erythrocephala?* *S. satellitia*, *D. rubiginea*, *H. croceago*, *D. templi*, *C. vetusta*, *C. exoleta*, *X. conformis*, *X. rhizolitha*, *X. semibrunnea*, *X. petrificata*, *G. libatrix*, *H. rostralis*, *E. coarctalis* (*angustea*) *E. ocellea*, *P. crenana*, *P. caudella*, *D. pallorella*, *D. propinquella*, *D. subpropinquella*, *D. alstræmeriella*, *D. vaccinella*, *L. epilobiella*, *L. clerckella*, *P. suffusella*, *P. salignella*, *P. pterodactylus*, *A. polydactyla*.

the female is very particular in her choice of food, and it is difficult to get her to eat when she is not in breeding condition. It is therefore important to have a good supply of herbage available, and the best way to do this is to grow some of the plants which she prefers. She is particularly fond of the common knotgrass (*Polygonum aviculare*) and if there is no other food available, she will eat it. She also likes the common chickweed (*Stellaria media*) and the common groundsel (*Senecio vulgaris*). If these are refused, we must fall back on the common nettle (*Urtica dioica*). Happily we have many available.

OVA]

MAY

the first place, and it is often eaten by species in confinement in preference to the natural food-plant. Hawthorn, Lotus (trefoil), and Glechoma (ground ivy), sallow, and sloe are also useful. For the Noctuae the following plants have been found acceptable—sallow, birch, plum, hawthorn, plantain, dock, dandelion, lettuce, clover, borage, goosefoot. When the food-plant is known, but cannot be procured, plants of the same natural order may be pretty safely substituted, and many will eat hawthorn or knotgrass when their natural food is not within reach. It is here, as in working out other branches of entomology, that a knowledge of botany is desirable; and the collector should not fail to make it his business to learn "all about" plants, as well as his favourite insects. If he does not, he will constantly find his progress impeded, and his ignorance upbraiding him. He should do this not by merely going through a cramming course at a Science School, however useful that may be as a groundwork for technical knowledge, but by super-adding to it the work of field botany, and mastering the mysteries of classification, and the best systems of natural arrangement.

- L. sinapison *Vicia cracca*, and
Orobustuberosus; long, standing
on one end, yellow-white
- P. brassicæon cabbage, &c.; in
groups; conical, ridged, yellow
- " rapæon *Cruciferae*, mignonette,
and other garden plants;
singly on the underside of a leaf
- " napion *Cruciferae*
- " Daplidiceon wild mignonette,
and weld
- A. cardamines, e. on Cardamine, Erysimum, &c., upon the fl.-stalks,
and base of the fl.; bright orange
- C. Edusaon white clover,
lucerne, &c. This species also
oviposits in June, and s. in
July and August, and even in
September
- Hyaleon clover, melilot
- V. c-albumon nettle, hop, elm,
sloe, currant
- " urticæon nettle; in batches
upon underside of leaf; barrel-shaped,
fluted, green
- " polychloros ...on elm, s. willow
and poplar; in regular batches;
globular, glassy, brownish
- " Antiopaon willow, birch,
poplar, nettle
- " Ioon nettle; green
- " Atalantaon nettle, singly;
green
- S. Aggeriaon grasses; singly
Megæra, e. ...on grasses
- C. Pamphilus ...on *Nardus stricta*,
and probably other grasses
- T. rubion bramble, broom,
Genista
- L. Alexis, e.on rest-harrow, trefoil, &c.
- " Argiolus, b....on holly, and prob-
ably buckthorn, upon the fl.-
stalks, rather close to the fl.;
at first green, changing to
white
- S. alveoluson bramble and wild
raspberry; singly, pale green
- T. Tageson *Lotus corniculatus*
- M. stellatarum...on *Galium mollugo*;
upon underside of leaf of plants
growing on old walls
- S. populion poplar, sallow,
willow; laid singly upon the
leaves; oval, green
- A. fuliginosa ...on dock, nettle, plantain, &c.; in regular batches
upon the leaves, as do the three
following species
- " mendicaon sloe, plantain,
&c.
- " lubricipeda ...on various low
plants; s. elder and other trees
- " menthrasti ...on various low plants
- O. pudibunda ...on hop, oak, &c.;
in regular batches

GENERAL

It is now generally agreed upon that the best method for plant breeding is to use crosses. Now, the first question which must be answered is nearly, if not always, what plants are to be crossed upon, as they require but little time to grow and flower. Of course in all these cases it is necessary to identify the species, and give it its proper name; and, if possible, to enable it to easily cross. Light, water, and abundance are essential conditions of growth. The crossing space should, therefore, never be too close to the food plant; and should, if possible, be provided with the requisite material, and space for each plant to undergo its most important transformations. In

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carrying out these arrangements, not only should every means be afforded the larva to make its cocoon, or to otherwise pass into the pupal state, but it should be remembered that in a few weeks the perfect insect will emerge, and provision must be made for its successful advent in the winged state.

Besides the hibernated larvæ, many will be found in various stages of growth which have only emerged from the egg state in the earlier spring months. Some of these may be rather small, especially if the season has been backward ; but their careful feeding up will have its reward in their being found to be seldom infected with parasites, to which older larvæ are more liable. In carrying out these breeding arrangements our object should not only be to carry the operation successfully through, but to learn the habits of the various species as they would behave in state of nature.

Many larvæ vary in appearance according to their age. In some species, when one of the regular changes of skin takes place, the appearance of the insect is completely altered. Many young larvæ are thus unknown, which, when mature, are recognised as old friends. Many noctuæ are more gaily dressed in youth than in maturity. Among the other kinds which are sober in colour in the earlier stage, but array themselves gorgeously in their last moult, are *L. Ægon*, *C. flavicornis*, *A. australis*, *T. rubricosa*, *E. nigra*, *C. exoleta*.

The cannibal larvæ should be carefully looked for when beating, and be "left out in the cold" if not wanted, or boxed separately if they are, or they will make short work of any larva that happens to come in their way.

A useful article to the larva collector is a bag, made of canvas or linen, about two feet deep by one foot wide. This would hold a large number of larvæ, with sprays of their food-plants, and when the mouth is tied the whole may easily be carried. If time presses on reaching home, the larvæ may be left hung up in their bag for a day or two, in a cool place, without injury. If the whole of the larvæ are turned out into a pan on reaching home, and covered with muslin, the case bearers will crawl up and attach themselves thereto.

The reader may again be reminded that night searching for larvæ, especially on low plants, often yields many species. They are sometimes found crawling up or down trees. Just before sunset is the best time for beating, or sweeping, especially on warm evenings in the early summer. On favourable evenings towards the end of May upon a heath, or moor, many species may be sometimes met with in abundance. Lettuce leaves have been recommended as a bait to catch larvæ, scattering the leaves over the ground some time before searching.

The long list of larvæ which comes under this month will furnish the collector with ample choice of material upon which to work.

P. crataegi.....from August, haw-thorn, sloe, and orchard trees
A. Paphia.....from August, dog, and sweet violet, in woods, &c.

A. Aglaiafrom August, dog, and sweet violet, and wild heartsease ; on hill-sides, and sea-side sandhills

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- A.** Niobefrom August, dog, and sweet violet
 - " Adippe.....from August, dog, and sweet violet ; in woods, &c.
 - " Latonafrom August, dog, and sweet violet, and wild heartsease
 - " Euphrosyne, b. from July, dog, and sweet violet; feeds in the sunshine; hides on the underside of primrose, and other leaves
 - " Selene, b.from July, dog, and sweet violet
 - M.** Cinxiafrom July, *Plantago lanceolata*
 - " Athaliafrom August, *Plantago lanceolata*, foxglove, wild germander
 - V.** c-album, e.nettle, hop, elm, sloe, currant
 - " polychloros ...elm, *Salix vitelina*, *S. viminalis*, *S. caprea*, *Populus tremula*, *Pyrus aria*, and fruit trees
 - L.** sibyllafrom August, honeysuckle ; prefers the plants which climb over bushes, and up the trunks of oaks
 - A.** Irisfrom August, sallow, and poplar. Grips too tightly to shake off. Often hides in crevices of bark of trees, or under loose pieces
 - A.** Galatca, b.from August, timothy, and other grasses ; may be obtained by sweeping. Some of the larvæ are green, and some are pale drab
 - E.** Epiphron.....from August, grasses in mountain bogs
 - " Medeafrom Sept., moorland poa, and other grasses
 - H.** Semele.....from Aug., quaking grass, couch grass, &c., on dry hill-sides, and sea-side sand-hills
 - " Ianira, e.from Aug., meadow grasses
 - H.** hyperanthus...from Aug., annual meadow, millet, and other grasses ; in and near woods ; may be found at dusk, or at night, feeding on the blades of grass, in wood ridings
 - C.** Davusfrom Aug., *Rhynchospora alba*; lives exposed
 - P.** Pamphilus ...grasses
 - T.** quercusoak ; most abundant in the upper branches. In confinement s. eats the changing pupa
 - " w-albumwytch elm
 - " prunisloe
 - " betulaesloe, birch
 - P.** Phlaeasfrom Oct., sorrel, dock, ragwort
 - L.** Ægon*Ornithopus perpusillus*
 - " Artaxerxes (var.) b., sun cistus; hides on the underside of the leaves
 - " Adonis, b.from Oct., Hippocrepis comosa, &c.
 - " Corydonfrom Oct., Hippocrepis comosa, &c.
 - P.** sylvanus, b.grasses, in rolled-up blades
 - S.** myopeformis in stems of apple, pear, plum, hawthorn; in old gardens
 - " formicæformis from Sept., in withy stems; may be found in the old stumps
 - " chrysidiformis inside r. of sorrel and dock ; at Folkestone and Eastbourne, and probably other places on the S. and E. coasts; supposed to be 2 years feeding
 - " cynipiformis...in the bark of unhealthy-looking oaks, and in old stumps
 - " ichneumoniformis in the stems of stinking hellebore, growing on cliffs, under-cliffs, and landslips, on the coast
 - " bembeciformis from Sept., in the stems of poplar, and sallow, and s. in the stumps of osiers

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- M.** arundinis, b. in stems of common reed
- Z.** aesculifrom Aug., in the wood of ash, elm, or pear trees; s. in hawthorn, lime, or box. The larvæ feed in the interior of the smaller branches, and are generally found in the upper branches of the highest trees. Their presence is indicated by the pellets of pink frass lying about, under the infected trees. They may be reared if the infected branch is sawn off, and kept damp. If the infected tree is marked, or known, it may be visited when the imago issue, and large numbers be s. taken at rest upon it
- H.** hectusfrom Aug., in r. of brake fern; two seasons feeding
- " lupulinusfrom Aug., in r. of dead nettle, &c.
- " velledafrom Aug., in r. of brake fern
- P.** staticessorrel, Cardamine impatiens, &c.; mine in the leaves while young
- " geryonsun cistus; mine in the leaves while young
- " globulariæ?
- Z.** minostrefoil, vetch
- " trifoliifrom July, trefoil, vetch
- " lonicerafrom July, clover, grasses
- " filipendulæ ...from July, crowfoot, trefoil, &c.
- S.** phegeafrom Sept., dandelion, scabious, plantain, &c.
- N.** cucullatella ...sloe, apple, hawthorn, &c.
- " confusalis.....oak
- " strigulaoak
- " albulalii?bramble? ash?
- N.** senexlichens, in fens and bogs
- " mundanalichens, on or under the top stones of old loose stone walls
- S.** irrorellaground lichens on the coast, just above the tide. The larvæ will feed equally well on tree lichens if sprinkled with salt water every morning, and the pan in which they may be kept is placed in the sun
- C.** miniatafrom Aug., lichen on oaks (*Lichen caninus*); also withered sallow, oak, alder
- L.** mesomella ...from Aug., lichens; will also eat sallow and heath;
- " musceralalichens, on sallow, in fens
- " aureola, e. ...from Sept., lichens, on larch, oak, &c.
- " pygmaeola ...lichens, among moss
- " lurideolafrom Aug., lichens; will also eat crab
- " molybdeola .. from July, lichens
- " complanafrom Aug., lichens, on sloe and fir
- " griseola.....from Aug., lichens, on poplar; *Lichen caninus* the supposed proper food, will also eat withered sallow, &c.
- " quadralichens, on oak, beech, apple &c., mostly old trees [mugwort]
- E.** grammica.....fescue grass, heath,
- " cibriumfrom Aug., heath, " bilberry
- D.** pulchella*Myosotis arvensis*
- E.** jacobæ .. ragwort, and groundsel
- C.** herafrom Sept., bugloss, and low plants
- " dominulafrom Aug., Cynoglossum officinale, &c., on hilly places, gravel pits, &c.
- E.** russulafrom Sept., plantain, *Erica cinerea*, *Hieracium*, dandelion &c. Feeds well on lettuce in confinement
- C.** plantaginis ...from Sept., violets, plantain, &c.
- " caiafrom Sept., nettle, and various other plants. Dark varieties may be s. got by feeding on coltsfoot or lettuce

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- C. villicafrom Sept., chick-weed, furze, and other plants. The hairy bombyces prefer feeding in the morning sunshine
- A. fuliginosa, b. from Sept., plantain, dock, grasses, &c.
- L. chrysorrhæafrom Sept., sloe, hawthorn, &c. "Painfully undesirable to handle"
- " aurifluafrom Sept., sloe, hawthorn, oak, sallow, &c.
- " salicisfrom Aug., poplar, willow, oak, &c. Often sun themselves on tree trunks when not feeding
- " disparMyrica gale, willow, sloe, hawthorn, and various fruit trees. Formerly found at large; now bred artificially
- " monachaoak, beech, birch, fir, apple, &c.; hides in the crevices of the bark
- O. fascelinafrom September, on hedges, dwarf sallows, furze fl., broom, heath, and various trees and plants
- " gonostigmafrom Sept., oak, nut, willow, sallow, bramble, sloe, hawthorn, beech, &c. If fed on willow there is a tendency to become double-brooded. Hibernates in a loose web
- T. crataegihawthorn, sloe, sallow, birch, oak. May be found on dense and closely-cropped hawthorn hedges bordering roads
- P. populioak, poplar, lime, ash, hawthorn. In repose it lies closely pressed on a branch or twig
- E. lanestrishawthorn, sloe, &c., in hedges; generally a large number in a web; s. remains in pupa several years
- B. neustriasloe, hawthorn, and fruit trees; generally in a batch in a web
- " rubifrom Sept., bramble, heath, &c.; often found wandering about in the sunshine
- B. roborisfrom Sept., hawthorn, dogwood, bramble, sallow, broom, heath, &c.
- " quercus (callunæ) from Sept., bilberry, &c.; dogwood preferred
- " trifoliifrom Sept., trefoil, clover, broom, grass, furze, raspberry, &c.; attached to the coast
- O. potatoriafrom Sept., coarse grasses
- L. queriefoliafrom Sept., bramble, sloe, sallow, willow, plum, &c. Rests along a twig or branch, which it greatly resembles
- O. sambucatafrom Sept., ivy, elder, holly, bramble, and other trees and plants
- E. vespertarianut
- " apicarianut, poplar, willow, sallow, alder
- A. prunaria, b.from Oct., broom, sloe, beech, bramble, sallow, hawthorn, plum, &c.
- M. margaritatafrom Sept., oak, beech, birch, hornbeam, &c.
- P. syringariafrom Sept., lilac, privet, elder, honeysuckle. May be found at night, hanging from its food
- C. elinguariahawthorn, sloe, oak, honeysuckle, &c., also, heath, bilberry, &c.
- H. pennariaoak, hawthorn
- P. pilosariaoak, elm
- N. zonariaAmmophila arundinacea, and other sand-hill plants
- hispidariaoak
- C. glabarialichens, on fir
- " lichenariafrom Sept., lichens, on oak, park palings, &c.; rests among the lichens, which it greatly resembles
- B. repandatabramble, sloe, birch, plum, spindle
- " perfumariaivy, lilac, clematis, &c.
- " abietariafrom Sept., larch, spruce, and Scotch fir; has been found on whortleberry; will also eat birch, and oak

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- B. roborariafrom Sept., oak
 G. obscurata.....from Sept., thyme,
 sun cistus, *Potentilla reptans*,
 Poteriam sanguisorba, &c.; hides
 under r. &c., by day
- D. obfuscatafrom Sept., heath,
 vetch, &c.
 M. cinerarialichens, on walls
 P. cytisariabroom, and *Genista*
 anglica, on heaths, forests, and
 waste places on the coast; may
 be found at rest, stuck up like
 twigs on broom plants
- G. papilionaria ..from Oct., nut, birch,
 beech, &c.
 " smaragdaria.. —? on the S. E.
 coast ; covers itself with frag-
 ments of leaves, &c.
- I. vernaria..... ...from Sept., *Clematis*
 vitalba
- P. bailiaria, b. from Aug., oak ;
 covers itself with fragments of
 leaves, &c., after every moult,
 until nearly full-fed
- H. thymaria.....hawthorn, oak
 H. auroraria.....from Aug., plantain
 A. rubricatafrom Aug., —?
 will eat knotgrass, *Lotus corniculatus*,
 Medicago lupulina,
 Thalictrum minus, and the
 smaller trifolium
- " scutulatafrom Aug., fl. of
 Anthriscus sylvestris, and dande-
 lion, preferring the withered
 leaves
- " contiguaria ..from Aug., *Empe-
 trum nigrum*; will also eat haw-
 thorn buds, and knotgrass
- " herbariatafrom Oct., dried
 plants in herbaria, & herbalist,
 shops, &c. Tansy found to be
 eaten where it occurred
- " rusticatafrom Aug., haw-
 thorn ; will also eat ivy, lilac,
 and withered bramble. Very
 local
- " interjectaria...from Aug., dande-
 lion, scarlet pimpernel, withered
 " holosericata ...from Aug., sun cis-
 tus, withered
- A. promutata ...from Aug., *Achillea*
 millefolium, *Artemesia vulgaris*,
 Potentilla reptans
 " straminata .. from July, — ?
 will eat knotgrass
- " immutatafrom Aug., some
 marsh plant; common in fens;
 will also eat knotgrass
- " fumatafrom Aug., heath
 " strigilata from Aug., *clematis*,
 Stachys, &c.; on the coast
- " emutariafrom Aug., *Triticum*
 repens; in salt marshes on the
 coast; will also eat *Medicago*
 Lupulina, mint, *Chenopodium*,
 Lotus corniculatus, knotgrass,
 &c.
- " aversata.....from Sept., prim-
 rose, gooseberry, nut, *Geum*
 urbanum, &c.
- " inornatavarious plants
- T. amatoriafrom Oct., dock,
 knotgrass, and other plants
- H. vauariagooseberry, &c., in
 gardens
- S. belgiafrom Aug., heath
 S. plumariaheath
- F. atomaria ...from July, *Centaurea*,
 trefoils, &c.
- " pinetariabilberry
- S. dealbatafrom Sept., grasses
- A. strigillaria ...from Aug., heath,
 broom; found at night on heaths,
 &c.
- " gilvariafrom Sept., *Achillea*
 millefolium, &c.
- A. grossulariata...gooseberry, currant,
 sloe, &c.
- P. hippocastanaria from Sept., heath
- H. rupicapra...oak, hawthorn, sloe
 " leucophearia...oak, maple. Vary
 very much
- " progemmaria oak, birch, horn-
 beam, nut
- " defolalariaoak, nut, sloe, haw-
 thorn, birch, elm, lime, &c.
- A. æsculariaoak, elm, lime, sloe,
 hawthorn, horse chestnut, apple,
 privet, &c.
- C. brumataoak, and other trees

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- O. dilutataoak, and other trees
 L. didymata*Chærophylleum tem-*
 ulum, cowslip, &c.
 " cæsiata, b.from Sept., bilberry,
 whortleberry, heath; prefers the
 fl.
 " ruficinctata ...*Saxifraga granulata*,
 and *S. hypnoides*; has been
 also found on fruit trees, pepper-
 mint, and sage
 E. nanata.....from Aug., heath, fl.
 " minutatafrom Aug., heath, fl.,
 scabious ; s. a cannibal
 " subciliata, b. maple
 " sobrinatajuniper
 " rectangulata...apple, and crab,
 buds, and fl.
 " debilitatawhortleberry, in
 curled-up leaves
 T. variataScotch fir, larch, &c.
 " firmatalarch, and Scotch fir
 Y. elutata, e.from Oct., nut, sal-
 low, bilberry, alder; hides
 among the seed-down of sallow
 M. rubiginata ...alder
 C. quadrifasciaria hawthorn, white
 dead nettle, knapweed, and low
 plants
 P. lapidata—? will eat cle-
 matis
 S. vetulatabuckthorn; between
 the leaves
 " rhamnatabuckthorn, birch ;
 between united leaves
 C. immanata ...strawberry, bilberry,
 alder, birch, &c.
 " prunatacurrant, gooseberry,
 sloe, &c.
 " testatabirch, sallow, poplar
 " populatabilberry, whortle-
 berry, poplar, sallow
 " fulvata....dog rose
 " pyraliata*Galium*, and haw-
 thorn
 " dotatablack, & red currant
 E. mæniariabroom
 " palumbaria ...*Genista*, broom,
 heath, clover
 " bipunctaria ...from Oct., trefoil,
 clover, &c.
- E. lineolata, s. ...*Galium verum*
 C. spartiana, e....broom ; feeds soli-
 tarily under the leaves, in which
 it makes holes. Is a cannibal
 in confinement
 T. chærophyllata *Anthriscus sylves-*
 tris, and *Bunium flexuosum* fl.
 D. siculaoak, birch, lime
 C. spinulahawthorn, sloe,
 mountain ash
 P. Cassineaoak ; s. sallow, lime,
 elm ; grips its food-plant tightly
 " nubeculosa ...birch; is difficult to
 rear in confinement; stale, dryish
 food is stated to afford the best
 chance of success
 C. curtulapoplars, sallow ;
 webbed in the leaves
 P. plumigera, e. maple ; will also eat
 sycamore [apple
 D. caruleocephala hawthorn, sloe,
 C. dilutaoak, birch ; between
 leaves
 B. glandifera ...from Sept., lichens,
 on walls. (See last month.)
 Towards the end of this month
 glandifera and perla are full-
 fed, and spin up in a crevice,
 or in the larva cocoon
 " perlafrom Sept., lichens,
 on walls
 L. conigeracouch, and other
 grasses
 " lithargyria ...grasses, chickweed,
 plantain, &c. ; may be found
 feeding at night
 " littoralis, b.from Aug., Ammo-
 phila arundinacea, on the coast.
 Burrows 6in. or 7in. in the sand.
 Will also eat Carex
 " impurafrom Oct., *Dactylis*
 glomerata ; may be found at
 night, feeding on the grass-
 blades
 " phragmitidis from Aug., in the
 young stems of common reed ;
 in marshes and fens
 T. elymi, m.*Elymus arenarius*,
 on the coast ; may be shaken
 out of the plant

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- N. fulva *Poa aquatica*, and
Carex, in the stems ; in damp
woods and fens
- " neurica .. common reed, in
the stems; a small hole is visible
in the stem of the plant tenanted
by a larva
- " geminipuncta common reed, in the
stems. Holes covered with silk
from within are visible on stems
containing larvae
- " cannae on *Typha latifolia*
- " lutosa from Oct., in stems
of common reed, below the
ground
- G. flavago marsh, and other
thistles, burdock, alder, fox-
glove, &c.
- H. nictitans at r. of *Tussilago*,
Cyperaceæ, &c.
- " micacea at base of leaves of
Carex, and inside stems and r.
of *Equisetum*, dock, &c.
- X. lithoxylea at r. of grass, and
other plants
- " polyodon low plants
- " scolopacina .. wood rushes, and
grasses
- H. popularis.....at r. of grasses
- L. cespitis grasses. Hides
among the r. by day
- M. abjecta at r. of couch grass;
the species generally occurs
on the coast, and in confinement
the food-plant should be
sprinkled with salt water
- " brassicæ cabbage, dock, Che-
nopodium, and chrysanthemum;
eats into the heart of cabbages
- A. gemina.....from Aug., grasses ;
hides at r. by day
- " fibrosa infl.-stem of yellow
flag
- " oculea in stems of *Dactylis*
glomerata, and other grass
- M. literosa slender foxtail grass
" furuncula in stems of *Festuca*,
and slender foxtail grass
- " arcuosa *Aira cespitosa*, at
the crown of the root
- C. Haworthii ... *Eriphorum vagi-*
natum
- G. trilinea.....greater plantain, and
other plants ; hides among the
r. by day
- A. valligera from Oct., at r. of
grasses, mostly on the coast
- " suffusaatr. of grass, lettuce,
radish, spinach, &c.
- " saucia low plants
- " ex lamatonis from Sept., at r. of
cabbage, turnips, &c.
- " corticea, b.from Sept., *Cheno-*
podium album, and other plants
- " cinerea from Sept., at r. of
low plants
- " cursoria *Euphorbia esula*,
sandwort, sea violet, &c.
- " nigricans plantain, clover, &c.
- " aquilina plantain, chickweed,
cabbage, poppy, bedstraw,
clover, &c.
- " obelisca *Galium verum*, and
low plants
- " agathina ... } heath, found at night
- " porphyrea } on heaths, or moors
- " præcox.....sea-side sandwort,
sea violet, chickweed, and other
low plants on the coast ; also
Salix repens, and other dwarf
willows. May be traced, and
dug up in the sand, in which it
burrows 7 or 8 in.
- " ravida at roots of thistle,
dandelion, &c.
- " Ashworthii ... from Oct., fescue
grass, hawkweed, sun cistus,
thyme, heath, harebell, &c.
- T. ianthina from Aug., broom,
chickweed, and other low plants
- " fimbria..... from Oct., birch,
oak, sallow, broom, primrose ;
may be found at night feeding
on primrose fl.
- " orbona from Aug., broom,
and low plants
- " pronuba from Aug., dock,
and other plants
- N. punctata.....sorrel, and other
low plants .

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- N. augurfrom August, low plants, hawthorn, sallow, &c.
 " ditrapezium ...low plants &c.]
 " triangulum, b. sallow, bramble,
 " rhomboidea ...from Sept., chick-weed, when young, afterwards on sallow, hawthorn
 " brunneasallow
 " festivafrom Aug., violet, sallow, foxglove, &c.
 " confusa.....from Aug., *Silene acaulis*, and many other plants
 " Dahliifrom Sept., low plants; found at night on heaths, &c.
 " subrosea*Myrica gale*, sallow
 " umbrosafrom Sept., dock, and other low plants
 " baialow plants
 " neglectafrom Oct., heath, birch, sallow, and low plants; found at night on heaths, &c.
 " xanthographa from Oct., plantain, &c.; hides under stones, &c.
- T. gothica.....sallow, hawthorn, oak, &c., also dock, nettle, laurel, broom, lilac, &c.
 " rubricosadock
 " instabilissloe, sallow, willow, oak, dock, and other low plants
 " opimawillow, sallow, rose
 " populeti poplars, especially *Populus nigra*; between united leaves [&c.
 " stabilisoak, elm, hawthorn,
 " gracilis.....willow, sallow, low plants
 " miniosaoak, and birch, when young, then hawthorn, and low plants
 " mundaoak, elm, poplar; hides in the bark crevices, and under detached pieces
 " crudaoak, nut, sallow; also other caterpillars
- O. suspectabirch, poplar
 " epsilon.....willow, poplar; hides under loose bark, or grass at the r.
 " lotawillow, sallow; hides in the bark crevices
- O. macilenta....beech, birch
 A. rufinaoak
 " pistacia:buttercups, dock, &c. Spins a tight, neat earthen cocoon, in which it remains some weeks before pupation
 " liturameadow sweet, and other low plants; also oak, willow, alder
 " lunosa, b.from Oct., grasses in elevated places; concealed under stones
- C. spadiceasloe, hawthorn, and honeysuckle, when young; later on various low plants
 " erythrocephala low plants
- S. satellitiaoak, &c., between the leaves; also other caterpillars
- D. rubiginea.....apple, plum, dandelion, and other low plants
- H. croceagooak
- X. citrago.....lime
- " ceragosallows, when young; later on low plants. Larvæ feeding on *Salix capreae* and *S. aurita*, Mr. Gregson says, almost always produce the typical species; while those which feed upon the catkins and leaves of *S. viminalis* often produce the lemon-coloured variety and its variations
 " auragobeech; hides in the chinks of the bark
 " gilvago.....wytch elm (seeds)
 " ferruginea ...sallow, *Populus tremula* (buds), wytch elm (seeds)
- C. xerampelina, b. from Dec., on ash; may be found at dusk, crawling up ash trunks; concealed in chinks of bark, and among grass at the base of the tree, during the day. Towards the middle or end of the month, having become full-fed, the larva spins under ground a very neat and compact boat-like cocoon, in which it remains some time before changing to a pupa

LARVÆ]**MAY**

- T. subtusa.....poplar, between the leaves
 " retusa, e.sallow, poplar, willow; between the leaves. The skin is very delicate, so that the lines look as if raised; head small, yellowish green, or blackish brown. These characters distinguish it from *E. viminalis*, which it otherwise resembles
- D. oo.....oak; between united leaves
- C. trapezinaoak, birch, hornbeam, &c.; also other caterpillars
- " pyralinapear, plum, &c.; between united leaves
- " diffinis} elm; between united affinis} leaves
- E. ochroleuca ...*Dactylis glomerata*
- D. capsophila ...*Silene maritima*, & *S. inflata* (seeds)
- P. chihawthorn, sallow, hawkweed, dock, Sonchus, lettuce, tea tree, &c.
- D. templi*Heracleum sphondylium*, inside the stem and root
- E. nigra*Galium mollugo*, plantain, grass
- " viminalissallow. Occurs with *T. retusa*, which it resembles, but the head is pale grey, with the lobes outlined in black; the lines more sharply defined, and two pairs of whitish dots on the back of each segment
- " licheneafrom Nov., ragwort, and various low plants, on the coast
- V. oleaginasloe, in shady places, and skirts of woods
- M. bimaculosa ...elm
- " oxyacanthæ ...hawthorn, sloe
- A. Aprilinaoak
- P. empyreafrom Nov., pilewort, &c.
- A. occultaprimrose, plantain, and other low plants
- " nebulosafrom Oct., sallow, hawthorn, birch, &c.
- A. tinctafrom Sept., birch, grass, and low plants
- H. proteaoak
- " dentina..... roots of dandelion
- " peregrina*Chenopodium*, and *Salsola kali*
- C. solidaginis ...bilberry; will also eat hawthorn
- C. vetustapoplar, and various meadow and marsh plants
- " exoleta scabious, campion, rest harrow, dock, *Eryngium maritimum*, turnip, asparagus, &c.
- X. Lambda (*Zinckenii*) *Myrica gale*; on moors
- " furciferaalder, birch
- " rhizolitha.... oak
- " petrificata, e. oak, lime, birch
- C. chamomillæ...chamomile, fl., *P. reticulatum* inodorum, and *P. maritimum*
- A. myrtilli, s.from Oct., heath
- A. luctuosasmall convolvulus; feeds by night, chiefly on the fl.-buds
- P. bractea*Eupatorium cannabinum*
- " festucæ.....*Carex*, reeds, and grasses, near the sea
- " iotanettle, dead nettle, honeysuckle, groundsel, &c.; may be easily found at night
- " v-aureumnettle, &c.
- " interrogationis nettle
- A. pyramidæa ...oak, elm, birch, willow
- " tragopogonis hawthorn, larkspur, and low plants
- M. maurafrom Sept., dock, chickweed, ivy, &c.
- T. pastinum*Vicia cracca*
- C. nupta*Salix fragilis*, and poplar; hides under bark during the day; may be found at night crawling up the tree trunks to feed
- " promissaoak
- " sponsaoak
- E. mi.....*Melilotus*

LARVÆ]

- E. glyphicaDutch, or white clover
 R. sericicallison — ? Probably various low plants
 H. derivalisfrom Aug., Carex sylvatica, and Luzula pilosa
 A. flexulalichen, in hedges, &c.
 O. dentalisin stems of Echium vulgare, on the coast; the plants look sickly when infested
 P. glauccinalis .. in nest-like formations on the end of birch twigs
 A. cuprealison — ?
 C. angustalis.....moss, on sea shores
 E. flamminalis ..heath
 C. leminalisaquatic, in a case filled with air, seeding beneath the fronds of duckweed; if bred must be kept in water
 H. nymphæalis ..aquatic, in a flat case, under the leaves of yellow water-lily, and Potamogeton pectinatus
 " stagnalisaquatic, on Potamogeton
 B. flavalis?Galium verum?
 " verticalisnettle, between the leaves
 " terrealisfrom July, golden rod, fl., &c.
 E. crocealisInula dysenterica, between the leaves
 M. unionalis? .. privet? successive broods
 S. lutealiscoltsfoot, &c.
 " olivalisground ivy, and other low plants, in a web under the leaves
 " prunalissloe, and low plants
 S. ambigualis ...moss
 " cembræthe mosses Hypnum elegans, and Jungermannia dilatata
 " murana.....the mosses Grimmea pulvinata, Dryum capilare, &c.
 C. verellus?moss on trees, &c.
 " falsellusthe moss growing on walls and rocks, Grimmea pulvinata, &c.
 " myellus?moss, on stones
- C. inquinatellus moss (*Barbula muralis* on the Continent)
 " chrysonuchellus? *Festuca ovina*
 " hortuellus.....moss
 " paludellus ...*Typha latifolia*
 C. cicatricellus ...bulrush
 " phragmitellus from Oct., reed
 S. forficellus.....*Poa aquatica*
 " gigantellus ...common reed
 A. lotellain the stem and r. of *Festuca ovina*, and *Aira canescens*, in a silken tube
 I. carnella.....*Lotus corniculatus*, fl.
 H. binævella, e. in heads of this'les
 E. pinguisunder bark of ash
 " cinerosella? .. *Artemesia campestris*, and *A. vulgaris*?
 P. betulellabirch
 " dilutellathyme
 " subornatella...thyme (Zeller), *Globularia vulgaris* (Herr Mann); between the leaves
 " obductella ...in spun-up leaves of *Origanum vulgare*, *Mentha arvensis*, *Melissa acinos*
 " roborellaoak
 R. consociella ...oak
 " advenellahawthorn
 " marmorea ...on stunted sloe bushes
 " suavellasloe
 " tumidella..... oak
 G. cerellawax in beehives
 O. ahenellaunder the radical leaves of *Helianthemum vulgare*
 M. alveariella .. from Oct., wax in beehives
 H. quercanaoak
 S. Revayana ...sallow (?)
 T. podana..... rose, fruit trees, oak, &c.
 " piceana.....fir
 " cratægana ...oak (?)
 " xylosteana ...fruit trees, oak, honeysuckle, &c.
 " sorbianabirch, alder, nut, oak
 " rosanaalmost any plant
 " dumetana.... low plants
 " diversanapolypagous on trees

LARVÆ]

MAY

- T. cinnamomeana beech, larch, &c.
 " heparanahawthorn, &c.
 " ribeana.....hawthorn, and al-
 most any tree
 " corylananut, plane, dogwood,
 &c.
 " unifasciana ...hawthorn, &c.
 " semialbana ...*Iris germanica*,
 honeysuckle, beech, &c.
 " costana.....figwort, willow
 herbs, and other marsh plants
 " viburnana ...*Myrica gale*, and
 Vaccinium
 " icteranaknapweed, plantain,
 and almost any low plant
 " viridanaoak, birch, &c.
 " Branderiana...aspen, poplar
 gnomanapolyphagous on trees
 D. Grotiana?oak?
 A. Gerningiana sea pink, asphodel,
 &c.
 L. Boscanaelm
 P. permutana? ...*Rosa spinosissima*
 maccana*Myrica gale*
 ferrugina.....birch, oak
 aspersana.....*Potentilla*, meadow
 sweet
 Shepherdana hemp agrimony, and
 meadow sweet
 comariana ...*Comarum*, *Fragaria*,
 &c., in boggy heaths and
 fens
 T. caudanawillow, sallow, pop-
 lars
 contaminana sloe, hawthorn, &c.
 D. lorquiniana ...*Lythrum*, in fens,
 &c.
 Loeflingiana...oak
 Holmiana ...hawthorn, rose, &c.;
 folded leaves
 Bergmanniana rose; folded leaves
 Foskaleana ...maple, lime
 P. Lecheana.... sallow, willow, elm,
 honeysuckle, oak, &c.
 D. Hartmanniana willow, &c.
 semifasciana sallows
 P. picana, e. ...birch, sallow shoots
 sororculana ...birch
 capreaeasallow
 prunianasloe
- P. ochroleucana rose
 " cynosbana ...sloe, rose, hawthorn,
 and fruit trees
 " gentianana ...from Nov., in teasle
 heads
 " carbonana ...(*fuligana*) *Stachys*
 A. salicanasallow, willow, pop-
 lar ; in folded leaves
 S. laricinalarch
 " ocellanaalder
 " acerianapoplar; in the young
 shoots and bark
 " dealbanapoplar, sallow
 " neglectana ...bark of willow, and
 poplar
 " simplanaaspen
 " incarnatana, e. *Rosa spinosissima*,
 on the coast
 " suffusana, e. hawthorn
 " roseolana, e. rose
 " roboranarose
 P. tripunctana ...sloe, &c.
 A. Udmanniana bramble
 S. achataanahawthorn
 S. latifasciana ... under moss, on
 trees
 " littoranasea pink
 " lacunanavarious low plants
 " urticanavarious low plants
 M. Schulziana? *Pinus sylvestris*
 Ratzeburgiana spruce fir, terminal
 shoots, and needles
 E. arbutana*Arctostaphylos uva-*
 ursi
 E. quadrania? ...*Scabiosa arvensis*
 C. cinctana?*Anthyllis vulneraria*
 politanapolyphagous
 S. subjectana ...various plants
 virgaureana...various plants
 Wahlbomiana polyphagous, like
 all the genus
 abrasana? ...*Achillea millefolium*,
 &c.
 S. ictericana almost any low plant
 B. uliginosana ...*Lythrum salicaria*
 P. inornatana ...— ?
 lætanaaspen
 G. minutana....black poplar
 trimaculana...elm
 nævanain holly shoots

LARVÆ]

- M A Y
- G. geminana ...in shoots of Vaccinium
 - H. crucianain sallow and willow shoots
 - B. angustiorana yew
 - P. corticanahawthorn
 - " profundanaoak
 - " ophthalmiticana white poplar
 - " sordidana.....alder
 - E. bimaculana ...alder, birch
 - " cirsianafrom Sept., in thistle and knapweed stems, in woods
 - " Pfulgiana.....from Sept., in thistle and knapweed stems, in open places; the piece of stem containing the larvæ may be cut off above and below the entrance-hole, and kept in damp sand
 - " turbidanaroots of butter-burr?
 - " foenianafrom Oct., in r. of Artemesia
 - " signatanaCerasus padus
 - " grandaevana (?) in r. of Petasites, & Tussilago
 - " populana ...sallows
 - O. uliniana ?bilberry
 - S. spiniana ? ... hawthorn, sloe
 - C. Hercyniana...spruce fir
 - " ustomaculana Vaccinium
 - P. mercuriana ...Dryas octopetala
 - R. BuolianaScotch fir
 - " pinicolana ...in shoots of Scotch fir
 - " sylvestrana .. in shoots of Scotch fir
 - S. regiana.....under sycamore bark
 - D. polianar. of Achillea millefolium
 - " alpinana (?) ...tansy r. (?)
 - " Petiverana ...r. of Achillea millefolium
 - " acuminatana ox eye
 - " simpliciana ...Artemesia
 - " consortana ...shoots of chrysanthemum
 - C. hypericana ...tops of hypericum
 - " maritimana ...Artemesia maritima
 - S. vibranaCarduus acanthoides, and C. crispus
 - E. dubitana ...Hieracium, fl., and other Compositæ
 - E. ambiguana ...in fl.-buds of vine?
 - " angustana ...heath
 - " vectisanaPlantago maritima
 - X. hamanahas been bred from Ononis repens
 - A. zephyrana ...in stems and r. of Eryngium maritimum
 - C. Francillonana from Oct., in stems of wild carrot
 - T. pubicornella on —? near Grassington, Yorks
 - " pseudo-bombycella from October, lichen, on oak, beech, &c.; in a long slender case

THE PSYCHE.—If a sharp lookout is kept in likely localities, the case-bearing larvæ of some of the genus Psyche may be found, though the perfect insect is rarely met with. Mr. R. MITFORD, of Hampstead, who has added much to our knowledge of the English members of this unsatisfactory group, writes to me of them as follows:—They have had here few friends, and in our List we have one or two which do not agree with Bruand's description of the insects. With the exception of a few of the species, it is utterly impossible to give the food-plant, as many of them are not found until they are crawling up tree-trunks, &c., to spin up, and others which may be found feeding on leaf or lichen on one tree or plant, will readily accommodate themselves to anything else that falls in their way; yet I have found that nearly all the species I find at Hampstead prefer the buckthorn bushes, particularly when in blossom, to anything else, whether for leaf, blossom, or lichen, I know not, but they will eat all the three. I have found all these insects the easiest things to rear in existence.

P. villosella (nigricans) e. grasses, heath, furze, &c.; New Forest, &c. Probably 2 years feeding up. This, and other low-plant feeding case-bearers, may be obtained by sweeping, or beating

LARVÆ]

MAY

- P. opacella, e. ...grass, heath, furze, &c.; has been found on fallen firs; New Forest, Witherslack, Rannoch. Probably 2 years feeding up
- " calvella (fusca) from Aug., on bramble; 2 years feeding up
- " salicolella?
- " betulinella (anicanella) buckthorn
- " pulella.....grass, on heaths
- " intermediella? Black Park, Virginia Water, &c.
- " roboricolella on trunks, and stones, and short grass, among Scotch fir
- " crassiorella?
- " reticella?
- P. Verhuellella seed-fronds of Asplenium ruta-muraria and hartstongue
- D. marginepunctella in a case, on trees, &c.
- X. melanella.....lichens, in a case, on trees, and palings
- P. Birdellaprobably among hay grass
- S. choragella ...in fungi
- " emotuella ...in fungi, on hornbeam
- " arcuatella.....in fungi
- " granellaamong grain
- " cloacellain rotten wood
- " arcellain rotten wood
- T. fulvimitrella in fungi, and rotten birch stumps
- " albipunctella rotten sticks
- " caprimalgella in rotten wood
- " pellionella ...in carpets, cloth, feathers, &c.
- " pallescentella in rabbit, hare, and cat skins
- " ganomella ...from Oct., in birds' nests
- " biseiellafrom Oct., in bird skins, hair seating, &c.; all the year round
- " nigripunctella in a case, on old fences
- " semifulvella...from Nov., in birds' nests, feeding on wool
- T. perochearella ants' nests
- L. quadripunctella in shoots of roses
- " prælatella.....from Sept., in a flat case, on underside of wild strawberry
- " rubiellain shoots of raspberry
- I. canariellaRosa spinosissima
- M. fastuosella ...nut
- N. Schiffermillerella? marsh mallow minimella ...ox eye, fl.
- Y. plumbella ...spindle
- " padellahawthorn, apple, &c.
- " cognatella ...apple and spindle
- " evonymella ...Prunus padus
- P. Curtisella.....in shoots and young stems of ash
- E. Messingiella Cardamine amara
- P. xylostella.....turnip, &c.
- " porrectella ...Barbara vulgaris, Hesperis matronalis
- H. sequellasycamore
- " vittella.....elm, beech, &c.
- " radiatella.....oak
- " coccellaoak
- Y. asperellaapple
- H. scabrellaapple, hawthorn
- " nemorella ...honeysuckle
- " harpellahoneysuckle
- P. querellaoak, and between leaves of sallow
- E. Allisella ...Artemesia vulgaris, terminal shoots
- D. costosella.....furze, Genista anglica, and broom, fl.
- " paliorella.....in leaves of Centaurea scabiosa
- " assimilella ...broom
- " manatellacarline thistle
- " atomellaGenista anglica, G. tinctoria, broom
- " arenellaAnthriscus, thistles, and knapweed
- " propinquella thistle
- " Alstræmeriella hemlock
- " hypericella ...hypericum
- " carduellathistle
- " ocellellasallow
- " rotundella .. wild carrot

LARVÆ]

MAY

- D. cnicellain *Eryngium maritimum*, and *E. campestris*, on the Continent
 " *Douglasella* ...wild carrot
 " *Weirella**Anthriscus*
 " *chcerophyllivorella*, e. *Chærophilum*
 G. *rufescentella* in grasses
 " *populella*sallow shoots
 " *nigra*.....on *Populus nigra*, and *P. tremula*
 " *lentiginosella* *Genista*
 " *mulinella*.....furze and broom, fl.
 " *sororculella* ...dwarf sallow
 " *pelicella*.....*Rumex acetosella*, in leaves near the stem
 " *viscaria* ...*Lychnis* shoots
 " *affinella*under moss, on old walls
 " *basaltnella*? moss?
 " *vulgella*hawthorn; between united leaves
 " *fugitivella*.....nut, elm, maple
 " *muscosella*...on poplars, and sal-lows
 " *fraternella* ...in seeds, and shoots of *Stellaria uliginosa*
 " *leucomelanella* *Silene maritima*, shoots
 " *maculifera* *Cerastium semidecandrum*
 " *vicinella**Silene maritima*
 " *marmorella*...chickweed, on sand hills
 " *instabilella* ...*Plantago maritima*
 " *ocellatella* ...*Beta maritima*, fl.
 " *atripicella* ...*Atriplex*, and *Chenopodium*
 " *sequacella* ...in shoots of sun cistus
 " *leucatella*.....hawthorn, apple, mountain ash
 " *nanella*.....pear, fl.
 " *Mouffetella* ...in shoots of honey-suckle
 " *dodecella*.....in shoots of fir
 " *ligulella*on *Lotus corniculatus*
 " *tæniarella*.....*Lotus corniculatus*, and other Leguminosæ, between united leaves
- G. *coronillella* ...*Coronilla varia*; between united leaves
 " *atrella*in *Hypericum* stems
 " *confinis*on moss, on old walls
 " *gemmeilla*.....lichens, on oak
 " *pictella*.....chickweed, on sand hills
 " *sangiella*in *Lotus corniculatus*
 " *pinguinella* ...in leaves of poplar; pupates under the bark
 P. *neuropterella* from Oct., in heads of *Cirsium acaule*
 A. *spartiella*furze
 " *genistella*.....*Genista tinctoria*, and broom
 M. *marginella* ...juniper
 " *juniperella* ...juniper
 A. *palpella*lichens, and rotten wood
 N. *verbasella* ...nr. Norwich, among *Verbascum pulverulentum*
 S. *umerella*.....*Artemesia campestris*; between united leaves
 P. *bicostella*from Nov., *Erica cinerea*
 H. *Christiernella* *Polygala*
 D. *sulphurella* ...in rotten wood
 " *oliviella*?.....decayed wood
 C. *augustella*? bark of trees
 " *tinctella*?decayed wood
 C. *fusco-aurella* in dead sticks
 B. *senescentella* thyme
 " *cicadella*, e....among r. of *Scleranthus perennis*, and *S. annuus*
 " *chenopodiella* *Chenopodium*, and *Atriplex*
 G. *thrasonella*? in stems of rush?
 " *equitella*in shoots of *Sedum acre*
 " *schnencicolella* in seed-heads of *Schoenus nigricans*
 A. *ephippella* ...wild cherry, in the shoots
 " *nitidella*in hawthorn shoots
 " *spinella*in mountain ash
 " *albistriella* ...sloe, in the shoots
 " *semifuscella*, birch, mountain ash, sloe shoots

LARVÆ]

- A. mendicella ...sloe shoots
 " retinellabirch
 " dilectellajuniper shoots
 " andereggiella wild apple
 " curvellaapple shoots
 " sorbiellamountain ash shoots
 " pygmælla.....in sallow catkins,
 and shoots
 Z. saxifragæ, e. *Saxifraga azoides*, &c.
 G. elongellain rolled alder, and
 birch leaves
 " ononiellarest harrow & clover
 G. atriplicivorella from Sept., in
 Atriplex
 C. alcyonipennella *Centaurea*, bur-
 dock, and thistles
 " Wockeella ...*Stachys betonica*
 " ochreellasun cistus
 " salicornella ...from Oct., *Salic-*
 cornia, in the stems
 " vibicella*Genista tinctoria*
 " conspicuella.. *Centaurea nigra*, &c.
 " pyrrhulipennella heath
 " anatipennella sloe
 " palliatella... oak, sallow, &c.
 " ibipennellabirch
 " currucipennella oak, sallow
 " discordella ...*Lotus corniculatus*
 " saturatella ...from Sept., broom
 " onosmella ...*Echium vulgare*
 " troglodytella *Inula dysenterica*,
 Eupatorium cannabinum
 " lineolella*Ballota nigra*
 " murinipennella rushes
 " caespiticella...from Sept., rushes;
 seeds
 " salinellafrom Oct., Atriplex
 portulacoides
 " hemerobiella plum, pear, cherry;
 in a case on the leaves
 " juncicella ...from Oct., heath
 " laricellafrom Sept., larch
 " albitarsella ...from Nov., Ori-
 ganum, and *Glechoma*
 " nigricella.....hawthorn, sloe, apple
 " fuscocuprella from Sept., elm,
 alder, birch
 " gryphipennella from Sept., rose
 " viminella ..from Sept., sallow,
 and osier

MAY

- C. olivaceella ...*Stellaria holostea*,
 Cerastium vulgatum, and C.
 arvense
 " solitariella ...from Oct., *Stellaria*
 holostea
 " artemisicolella from Aug., fl. of
 Artemesia vulgaris, and A.
 camppestris
 " graminicolella? *Lychris flos cuculi*?
 " lutipennella...oak, birch
 " badiipeunella elm, ash
 " limosipennella elm
 " chalcogrammella *Cerastium*
 arvense
 " bicolorella?...alder
 B. præangustella poplar, willow; be-
 tween united leaves
 O. v-flavella.....in fungi, and wine
 corks
 C. Illigerella ...*Ægopodium poda-*
 graria, in crumpled leaves
 L. paludicolella *Epilobium hirsutum*
 " lacteella*Epilobium hirsutum*
 " conturbatella *Epilobium angusti-*
 folium, among terminal leaves
 " Raschiella ...*Epilobium angusti-*
 folium
 " ochraceella ...*Epilobium hirsutum*,
 in stem and r.
 " phragmitella *Typha latifolia*, heads
 " rhamniella ...buckthorn
 C. Schrankella...in *Epilobium alsini-*
 folium
 E. Gleichenella in *Luzula*, and *Carex*
 " magnificella...*Luzula pilosa*
 " albifrontella...in many grasses
 " atricomella ...in stems of *Dactylis*
 glomerata
 " luticomella ...in stems of *Dactylis*
 glomerata
 " cinereopunctella from Sept., in
 Carex glauca
 " trapeziella ...from Oct., in *Luzula*
 pilosa; examine the under-side
 of the leaves
 " perplexella ...in *Aira caespitosa*
 " tænitella ...from Sept., in *Brachy-*
 podium sylvaticum
 " megerella ...from Sept., in *Brachy-*
 podium, *Bromus*, *Aira*, &c.

LARVÆ]

- E. adscitallain *Sesleria cærulea*,
and *Aira cespitosa*
- " rhyncosporella in *Eriphorum*, and
Carex
- " eleochariella...in *Eriphorum*, and
Carex
- " biatomella ...in *Carex glauca*
- " triatomella ...in a fine grass
- " pollinariella...*Brachypodium sylvaticum*
- " cygnipennella *Dactylis glomerata*,
and other grasses
- T. dodonaella from Oct., in oak
- L. quinquegutella in dwarf sallows
- " vacciniella ...in whortleberry
- L. Clerckella ...in sloe, apple,
cherry, hawthorn, &c.
- C. spartisoliella under bark of broom
- Wailesella ...in *Genista tinctoria*
- O. auritellain fl. stalks of *Caltha palustris*
- B. aurimaculella on *Chrysanthemum*,
and ox eye
- " maritimella...*Tripolium vulgare*
- " cristatella.....on yarrow
- " artemisiella...*Artemisia campestris*,
and yarrow
- T. immundella...under bark of broom

MAY

- A. Bennetii*Statice limonium*
- P. Bertrami*Achillea millefolium*,
and A. ptarmica
- " ochrodactylus yarrow shoots
- " isodactylus ...in shoots and stems
of *Senecio aquaticus*, &c.
- " Zetterstedtii? in stems of *Senecio sylvaticus*
- " parvidactylus thyme, and *Hieracium pilosella*
- " phæodactylus rest harrow
- " serotinus*Galium mollugo*
- " plagiодactylus *Scabiosa*, and *Veronica chamædrys*
- " lithodactylus *Inula dysenterica*, &
I. conyzæ
- " tephradactylus from Sept., golden
rod ; in shady places
- " galactodactylus burdock
- " spilodactylus *Marrubium vulgare*
- " tetradactylus thyme
- " pentadactylus *Convolvulus*, &c.
- " dichrodatylylus tansy
- " Lienigianus, e. *Artemisia vulgaris*
- " brachydactylus *Lactuca muralis*, &c.
- " baliiodactylus *Origanum vulgare*
- " ariduson the Continent
fl. buds of *Coris monspeliensis*

PUPÆ]

Although the practice of searching for pupæ has never been recommended during the summer months, the number of kinds, as proved by the subjoined list, shows that it should not be omitted from our programme, at least when we are in quest of any particular species, or when circumstances prevent our following out any other plan of operations.

- M. Athalia, e.suspended, among
plantain, &c.
- S. Megæra, b....on grass stems, &c.
- L. Alexis, b.under stones, &c.
- " Adonis, m.sub., at, or among
Hippocratea comosa
- S. populisub., at r. of poplar,
willow, &c.
- " tiliæsub., at elm, lime,
beech
- C. porcellussub., near *Galium elpenor*.....sub., near willow
herb, &c.

- S. myopæformis in wood of branches
and trunks of apple, and pear
trees
- " culiciformis ...in stumps of felled
birch
- " formicæformis in withy stumps.
Pupæ of clear-wings are best
sawn out of the wood
- " cynipiformis in oak stumps
- " muscæformis in the heart of
withered plants of sea pink
- " tipuliformis ...in wood of currant
bushes

PUPÆ]

MAY

- S. sphegiformis in r., branch, or twig
of alder
" asiliformis ...in r. or stem of ash,
or poplar
" bembeciformis in stem, or branch
of poplar, osier, or sallow
" apiformis, b. in r., or base of trunk
of poplar
- M. arundinis .. inside reed stem,
which the pupa can traverse, by
means of its hooks
- C. ligniperda ...at various trees,
spun up, under bark ; s. sub.
- H. lupulinus.....at r. of dead nettles,
&c. ; in a long cocoon, like a
gallery, which it can traverse,
by means of its hooks
" velleda.....at r. of brake fern ;
spun up amongst loose soil
- L. assellusspun up, on a leaf
- N. cucullatella...on twigs, and bark
of hawthorn, and sloe
" confusalison bark of oak
- S. irrorellain a slight web,
under stones, oyster, cockle,
mussel shells, &c., on the coast,
just above the tide-mark
- L. aureolaunder moss, on lichen-
covered larch, oak, &c.
" deplanaon lichen-covered
yew, spruce fir, oak, beech
" lurideolaon lichen-covered
trees, and old walls
- C. plantaginis ...spun up, between
leaves of violets, plantain, &c.
" villicaspun up, about low
plants
- A. fuliginosa ...in a boat-shaped
cocoon, on food-plant
" lubricipeda ...spun up, on trees,
palings, &c.
" menthrasti ...spun up, on trees,
palings, &c.
" urticaunder moss, on trees
- L. salicisbetween leaves of
willow, poplar, &c. ; under bark
and copings, and on palings, &c.
- B. rubiin a long, loose
cocoon, among food-plant
- A. prunariaamidst folded leaves
- E. fasciariaat base of Scotch
firs ; rarely within 2 feet of the
tree, at 1½ to 2 inches deep
- E. dolobraria ...under moss, on oak,
&c.
- N. zonariato March, sub., on
sand-hills
- B. repandata ... } e. spun up, in
" rhomboidaria } loose cocoon
" abietaria, e. in cocoon, about larch
" roboriaat oak, in slight
cocoon ; s. sub.
consortaria ...under moss, on oak
- I. lactearia.....spun up, among leaves
of oak, or birch
- P. baiulariaspun up, in a loose
net-work, on underside of oak
twigs
- H. thymaria ...in loose cocoon,
amongst leaves
- E. poratafastened to leaf of oak
- E. hepaticaat alder; on the sur-
face
- A. bisetatain slight cocoon, at
base of leaves of dandelion
" trigeminata ...in loose cocoon
" promutata ...
" fumata
" aversata
- C. exanthemaria spun up, under leaves
of sallow, and alder
- S. belgiaariaamong heath, in a
slight cocoon, on the ground
- S. dealbatain shuttle - shaped
cocoon, on grass stem
- A. ononariaamong, or near rest
harrow, on the surface
- A. strigillaria, e. in a web among
heath, or broom
- L. caesiata, e.in a slight web,
among leaves of bilberry, whorl-
leberry, or heath; on mountain-
ous heaths
- " olivataamong Galium mol-
lugo, in a slight cocoon, on the
surface of the soil, under a leaf,
or stem
- E. unifasciata ...from May, among,
or near Odontites rubra ; s. re-
 mains several years in pupa.

PUPÆ]

MAY

- E. isogrammata.....about Clematis vitalba
 " nanataabout heath
 " minutataabout heath
 " rectangulata...on apple, and crab; under moss, and loose bark
 M. ocellatain cocoon, amongst Galium; near the ground
 M. galiata.....sub., near Galium
 A. sinuata.....on the ground, in earthen cocoon, among Galium
 C. picatafrom Sept., in a slight cocoon, on the surface, among, or near chickweed
 " sagittataspun up, about Thalictrum, or on the ground near; in sens
 " russataspun up, on leaf of strawberry, birch, hawthorn, sallow, &c.
 " populataspun up, about bilberry, &c.
 " fulvataabout dog rose
 E. palumbaria ...in compact cocoon, among broom, &c.
 P. falculabirch, &c.; between united leaves
 " hamula.....oak, birch; between united leaves
 " unguicula.....among beech leaves, in a slight web, or on the ground
 D. furcula.....spun up, on trunk of willow, or sallow
 " vinulaspun up, on trunk of willows, poplars, or sallow
 S. fagispun up, at beech, oak, birch, elm; among leaves, or at r.
 P. bucephala .. sub., at various trees
 C. reclusa.....spun up, among dead leaves of sallows, poplars, willows
 P. palpina at willows, and poplars, on edges of streams, in cocoon on the ground, or under sods
 N. camellina.....at various trees, in a slight cocoon
 " eucalyptinaat maple, and sycamore, under moss, &c.
- N. dictæain large cocoon, at poplars, sallows, and willows, under a leaf, or sod
 " dictæoides ...in a slight cocoon, at birch, under a leaf, &c.
 " dromedarius in a slight cocoon, at birch, alder, nut, under a leaf, &c.
 " ziczacat poplars, sallow, willows, in a slight cocoon
 Dodoneasub., at oak, or birch
 T. batisnear bramble, and wild raspberry,
 C. duplarisbetween united birch leaves
 " fluctuosaamong birch leaves
 D. Orionat birch, and oak; in a cocoon of gnawed bark, or rotten wood
 A. tridens.....spun up, in crevices of bark, at hawthorn, sloe, rose, willow, sallow, mountain ash
 " psiin bark crevices of various trees
 " leporinain excavations in the bark of birch, poplar, alder, sallow
 " acerisspun up, among fallen leaves, and under loose bark of sycamore, horse-chestnut, maple, birch, and s. oak
 " strigosaamongst dead leaves of hawthorn, or rubbish, or decayed wood; s. sub.
 " ligustris.....spun up, under moss, stones, &c., near ash, and privet; also sub.
 " rumicis.....spun up, in crevices of trees, palings, walls, &c.
 L. lithargyria ...sub., about grass
 " littoralisbelow the surface, on sand-hills, about marum grass; on the coast
 A. purissub., at elm
 X. rureaunder moss, on stumps, &c.
 " hepaticaunder moss, and stumps
 D. pinastriin a cocoon, on the ground, among dock, sorrel, &c.

PUPÆ]

- P. leucophæa* ...amongst moss
A. unanimis ...under bark of willows, in damp places, and among decayed willow wood
C. Morpheus ...spun up, in a leaf, or an earthen cocoon, attached to food-plant
R. tenebrosa, b. among violets, and other low plant's; a little beneath the surface
A. segetum, s. ...sub., among Cruciferae, grass, &c.
T. ianthina { sub., at various
 " *fimbria* { low plants
 " *orbona* {
N. augur { sub., near rose,
 " *bala* { bramble, &c.
 " *festiva* { sub.
 " *conflua* among low plants;
 on, or near the surface
 " *umbrosa* under moss, &c.
A. nebulosa sub., near low plants
H. marginata ...sub., near *Ononis procurrens*

MAY

- H. dipsacea* among melilot, and probably *Sileneotites*, and *Linaria*
A. myrtilli spun up, in heath
E. venustula at r. of *Tomentilla reptans*, and grass
A. urticæ spun up, among nettle leaves
 " *triplasia* spun up, among nettle leaves, hop, &c.
P. chrysitis among the leaves of burdock, thistle, nettle, dead nettle, &c.
M. typica, e. spun up, on walls, palings, &c.
P. ænea among *Polygala vulgaris*
H. tarnipennalis at sallow, or wild raspberry (?); spins down a leaf
A. flexula, e. in a spun leaf
E. sambucalis ...spun up, in crevices, in palings, walls, &c., near elder
P. margaritalis...among wild mustard
G. canella..... among *Salsola kali*
P. trigonodactylus on coltsfoot
 " *osteodactylus* on golden rod

IMAGOS]

The rapidly lengthening lists, which each month now discloses, plainly enough indicate the increasing number of possible captures open to the collector. A great number of species will require the stimulant of the beating stick before they will discover themselves. A rarity sometimes

"Then breaks from out the bush with hurried wing,"

and the collector has himself to thank if he misses it. A mallet, which is used on the Continent, has been recommended for jarring moths off trees with slender trunks, and the lower branches of other trees. The yew is a good tree for harbouring moths, and may be sometimes pelted with stones, &c., with advantage. The plant or tree which the larva feeds upon is often chosen by the imago for its place of concealment, and may be said to constitute the next natural attraction to flowers,—

"The murmurous haunt of flies on summer eves,"

which are visited by many moths and butterflies, both during sunshine and at night. A mass of flowers, in the sunshine,

"With butterflies for crowns,"

forms, indeed, a beautiful object, besides giving the collector a chance of a good "haul."

IMAGOS]

MAY

Many small moths (says Mr. C. G. BARRETT) may be blown (by the mouth) into the net. If a steady wind is blowing this mode of capture is often very productive; if it is stormy or gusty, hardly a specimen can be obtained. Many species which cannot be seen may be thus captured, especially from trunks of trees which they so much resemble in colour as to be undistinguishable. This practice of blowing, however, tries the "wind," and only the strong can keep up the exercise.

Some of the species which rest on tree trunks, and which may be found this month, require to be carefully sought for. Some notes on this subject will be found under the February Imagos. The northern and eastern side of tree trunks, in larch and beech woods, in most elevated districts, yield *T. crepuscularia*, and sometimes *T. consonaria*, *T. biundularia*, and *H. abruptaria*. *T. consonaria* when disturbed generally dives down into the grass, from whence it sometimes requires care to extricate it without damage.

The reader may be reminded that most of the Pyrales require to be beaten out of the thick undergrowth in which they hide; and that Tortrices generally fly most at about a couple of hours before dusk, while many also fly in the early sunshine.

Now that the Noctuæ are beginning to appear in some plenty, the reader should not forget the desirability of resorting to "sugaring," which, from this family's love of sweets, often proves a means of capturing large numbers. Many of them also show a great liking for light, and this is indicated in the lists where it has been strongly manifested.

- | | |
|--|--|
| P. Machaon.....fens, and marshes | L. alsus, e. ....hills, railway banks, |
| L. sinapis.....woods ; does not travel quietly if boxed | coast sand-hills, &c. |
| P. brassicæ .....gardens, &c. | " argiolus .....among holly, in plantations, woods, and gardens, and at fl. |
| " rapæ.....gardens, &c. | N. Lucina, e. ....woods, and banks near, where primrose abounds |
| " napi .....gardens, &c. | S. alveolus .....woods, and fields |
| " Daplidice....has been taken in lucerne fields | T. tages .....heaths, commons, hills, &c. |
| A. cardamines ...fields, &c. | H. sylvanus .....hills, and woods |
| A. Euphrosyne woods, &c. | S. ocellatus .....rest on trees, |
| M. Artemiswet meadows; rests among the herbage in dull weather | " populi} palings, &c. ;
" tiliæ} come to l. |
| " Cinxia .....on the coast | D. lineata.....at fl. |
| S. Ægeria.....woods, and lanes | C. porcellus, e. may be found on patches of <i>Galium verum</i> , or on the ground near; hovers over fl. at early dusk, and comes to sugar |
| " Megæra .....lanes, banks, walls | M. stellatarum...flies by day, and in the evening; hovers over fl.; often found flying over old walls where <i>Galium</i> grows, and on coast sand-hills |
| C. Pamphilus ...fields, &c. | |
| T. rubi .. .....near woods | |
| P. Phœas .....fields, and lanes, coast sand-hills, &c. | |
| L. agestis .....hilly fields | |
| " Alexis, e. ...fields, and hills; rests on grass, &c., at night | |
| " Adonis.....chalk downs, and limestone hills | |

IMAGOS]

MAY

- M. fuciformis ...flies in the sunshine, and hovers over fl., generally from 9 till 11 a.m., and 3 to 4 p.m.
 " bombyliformis flies in the sunshine and hovers over fl., seldom after 1 or 2 p.m.; may be found at rest on the ground in dull weather
- S. myopaeformis on apple, and pear trees, particularly if old, and unhealthy, and bushes, &c., near
- " culiciformis, e. on birch
- " cynipiformis, e. on oaks; s. in coppices
- " sphegiformis on low plants near alder, and hovers over fl.; also flies in the evening
- " apiformis, e. on poplars; s. mistaken for a hornet
- H. lupulinus, e. flies just before dusk
- P. geryonon grassy hill-sides; flies in the sunshine
- N. confusalis, e. at rest, on trees, &c.
- L. aureola.....rests on larch trunks, high up, and may be beaten from trees
- " rubricollis ...flies in the sunshine, over the tops of larch, &c.
- D. pulchella.....has been taken in fields, flying by day
- C. plantaginis, e. hills, and the ridings of hilly woods; flies by day
- A. fuliginosa.....
- " mendica
- " lubricepeda ...gardens, &c.
- " menthrasti ...gardens, &c.
- O. pudibunda ...gardens, &c.; s. found hanging to the undersides of bramble and hop leaves; flies about 11 p.m.
- D. corylibeech woods, &c.
- B. rubiheaths, &c., in bright weather often flies about 3 p.m.; also in the evening
- L. ilicifoliaon moors
- S. carpiniheaths, and open places; flies in the sunshine
- E. avenaria, e. hides in grassy ridings of woods, among bilberry; easily disturbed
- R. cratægata ...beaten from hedges
- V. maculata.....woods; flies by day
- E. dolobraria ...woods; beaten from oak
- S. lunariawoods; comes to l. illustraria.....woods
- O. bidentatarests on tree trunks
- B. hirtaria, b. ...in the squares of London
- A. betulariaon trees
- H. abruptaria ..on trees, palings, &c., and in gardens; comes to l.
- B. cinctaria
- T. consonaria .. at rest, on trees; in beech woods
- " crepuscularia, b. on trees
- " biundularia ...on trees, and palings
- " punctulata ...
- N. viridatamosses and fens; fades soon after appearing
- I. lactearia, e.woods; flies by day; soon fades
- E. poratawoods
- " punctariawoods
- " trilinearia.....beech woods, flies in the sunshine
- " omicronaria...woods; beaten from maple
- " orbicularia ...may be beaten from pendularia ...woods, &c. [birch
- H. auroraria.....in fens, &c.
- A. luteatawoods
- " candidata.....woods
- " Blomeraria ...on wooded hillsides, near wytch elms, at rest on larch, and other trees
- A. ornataon grassy hills, &c.
- remutata, e....woods
- C. pusaria.....woods
- " rotundaria ...
- " exanthemaria woods
- C. temeratawoods, &c., in the neighbourhood of wild cherry, and buckthorn
- " taminatawoods
- M. notatawoods; on birch trunks
- liturata.....in larch woods
- S. clathratain, and near saint-foin fields .

IMAGOS]

- P. petaria*
N. pulveraria ...
S. belgariaria, e....heaths
F. carbonaria ...
 " *atomaria*fields, woods, fens,
 heaths
 " *piniaria*flies in the sunshine,
 round fir trees; flies high after
 the first week
M. euphorbiata woods
S. sacraariaflies by day; has
 been taken at fl., at sugar, and
 at l.
L. purpuraria ...in the north; flies by
 day, on dry hills
A. ononaria, e. among, or near rest
 harrow
A. citraria, m.among wild carrot,
 chiefly on the coast
L. adustataamong spindle
L. marginatawoods
P. hippocastanaria flies after dusk,
 among heather
L. pectinifaria ...in hedges; comes
 to sugar
E. albulaamong yellow rattle
blandiata
 " *venosata*among Silene, and
 Lychnis, and on palings near
 signatain apple orchards,
 rests on the trunks, just below
 the first branches
 " *linariata*among toadflax
 " *pulchellata*among foxglove
 " *centaureata* ...on palings, &c., and
 among ragwort, &c.
 " *plumbeolata*, e.
 " *pygmæata*flies in the sunshine,
 among long grass, and settles on
 low fl.
helvetica ...
 " *satyrata*
 " *castigata*on palings, &c.
laricataamong larch
virgaureataamong golden rod
 " *albipunctata* has occurred as early
 as Jan. and Feb.
 " *pusillata*among spruce
 " *irriguata*rests on birch, oak,
 &c.; may also be beaten

MAY

- E. pimpinellata*
 " *fraxinata*, e....s. as early as Jan.
 " *indigata*on fir trunks
 " *nanata*on heaths
 " *vulgaris*
 " *assimilata* ...
dodoneataflies in the early
 morning sunshine
 " *exignata*
 " *pumilaria*
coronataon trees, and palings
L. sexalataon tree trunks, in
 hedges, and by beating
 " *hexapterata*woods
 " *viretata*on birch, and fir trunks
T. simulata
Y. ruberata
impivaria ...
M. ocellata
 " *albicollata* ...
M. hastata, e.woods; flies in the
 sunshine, generally after 2 p.m.;
 may be beaten from birch, and
 other trees
 " *procellata*beaten from clematis
 " *sociata*(*subristata*)
montanatawoods
 " *fluctuata*on walls, and palings
galiata
A. derivata
berberata
C. propugnatawoods
 " *ferrugata*woods
 " *unidentaria* ...
C. fluviataat light
P. lignata, e.
 " *vitalbata*beaten from clematis
S. certataat rest on palings,
 &c.; also at light
C. corylatawoods
 " *russata*woods
 " *suffumata*flies at dusk
 " *silaceata*among willow herb
 " *prunata*
E. lineolatarests on coarse
 grasses, on the coast
A. plagiata
C. obliquariaamong broom; does
 not fly till between 10 and
 11 p.m.

IMAGOS]**MAY**

- P. lacertulathe hook-tips may
be beaten from their hiding-
places, in trees, by a long pole;
females may be thus obtained,
which are rarely seen
- " sicula, e.
- " falcula.....
- " hamula.....flies in the day time,
generally in the morning; may
be beaten from oak; comes to l.
- " ungnicula.....a day-flyer; may be
beaten from beech
- C. spinulaat rest, on palings, &c.
- D. bicuspis ...
- " furcula, e. } at rest, on willows,
" bifida, e. ... } poplars, &c.
" vinula }
- P. bucephala ...at rest; comes to l.
- C. curtula
- " reclusa
- G. crenata
- P. palpinaat l.
- N. camelinia.....hides on fronds of
fern, and in, and on trees;
comes to l.
- " dictæaat rest, at base of
willows, and large poplars
- " dictæoides
- " dromedarius at l.
- " tritophus
- " zizzachides in bark crevices
of poplar
- " trepida.....at l., and on oak
trunks
- " Chaonia
- Dodonea
- T. batis..flies over bramble,
at dusk
- C. duplaris
- " fluctuosa ... } do not always travel
" ocularis ... } quietly when boxed
- A. psiat rest, on tree trunks
- " leporinaon tree trunks, s.
high up
- " acerison trunks of syca-
mores, and palings
- " megacephala on tree trunks, and
palings
- " alnithis rare species has
been taken at sugar
- A. ligustris.....at rest, on ash trees
- " ruminis.....
- " auricoma
- " myricæ.....in the North
- M. flammea
- X. rurea, e.
- X. conspicillaris, b. rests on trees,
especially where the bark has
been stripped
- N. saponaria, e.
- P. leucophaea, e.
- M. albicolon, e. on the coast
- " brassicæon walls, palings,
&c.
- A. basilinea
- " unanimis, e. marshes, and fens
- G. trilinea.....in grassy places
- H. palustris, e. has been taken at l.
- C. cubicularis ...beaten from thatch
- R. tenebrosa, m.
- T. pronuba
- N. c.-nigrum ...
- " rubi
- T. gothica.....at fl.
- " rubricosaat fl.
- " opimaat fl.
- " populetiat fl.
- D. carpophaga...at l.
- " capsophila ...
- " capsincola ...
- " cucubalimay be taken at rest,
and hovers over fl.
- E. lucipara
- H. adusta, e. ...
- " dentina.....
- " chenopodii ...at l.
- " suasaat sugared fl., on
commons, &c.
- " pisi, e.
- " thalassina, e.
- " genistæ, e. ...
- " rectilinea.....at rest, on stones,
&c., on dull days
- C. perspicillaris
- C. verbasci
- " scrophulariae
- " asteris
- " chamomillæ...s. hides under the
top ledge of a paling
- H. marginata, e.

IMAGOS]

MAY

- A. cordigeraat Rannoch
" myrtilli.....flies in the sunshine,
on heaths
- H. arbutifields, &c.; flies in
the sunshine
- A. luctuosaflies in the sunshine,
in clover fields, &c., and hovers
over fl.
- E. venustula, e.
- C. alchymista ...
- O. lunaris
- E. mi.....} fly in the sunshine,
" glyphica ...} and hover over fl.
- P. ænea.....}
- M. salicalis.....among long grass, &c.
- H. barbalisbeaten from under-
growth
- tarsipennalis, e. woods
- P. punicealis ..flies in the sunshine
" purpuralis ..flies by day
ostrinalis, e. flies in the sunshine
- H. cespitalis.....
- E. cingulalison grassy hill-sides,
&c.
- " anguinalis ...on grassy hill-sides,
&c.
- " octomaculalis, e. woods, &c.
- A. nemoralis.....
- P. stratiotis ..flies at dusk, over
stagnant pools; comes to light
- B. lupulinalis ...among hop
lancealis, e....
- M. unionalis.....successive broods
- S. decrepitalis ...
- S. dubitalis
- C. pratelluss. at sugar
" chrysounchellus among dry grass,
&c., local
rorellus.....
- H. nimbelli ...among Jasione mon-
tana, and thistles, and ragwort,
on the coast
- seneconis ...
- E. ficella, e.
- P. interpunctella, e.
- N. angustella ...
- O. ahenella
- M. cephalonica, e.
- H. prasinana ...woods
" clorana.....osier beds
- T. ministrana ...woods
- A. prodromana northern moors
- P. mixtanafrom July, moors
- A. Conwayana...
- P. Lecheana.....woods
- P. praelongana ...
- " marginana .. damp woods, heaths,
and fens
- S. laricianaamong larch
" suffusanahedges
- " simplanaamong poplar
- P. tripunctana, e. gardens, and hedges
- S. euphorbiana S. coast
- M. palustrana ...Perthshire, &c.
- R. arcuanaamong young oaks
- E. árbutanaon heaths, in the N.
- E. fractifasciana on downs
quadranaKent, Surrey, &c.
- P. rugosana, e. in hedges, among briony
- C. politanaon heaths
- musculana ...hedges
- C. favillaceana...in woods, among
juniper
- C. rusticanamoors, fens, mosses
- B. lanceolana ...among rushes
- P. siculanaWitherslack
unguiculata ..heaths
- " uncanaheaths, and woods
- " comptana.....chalk downs, &c.
- " subcaruana ...fens
- " myrtillana ...moors, among Vac-
cinium
- " Lundana ...
- " diminutana, e. among sallows
- " Mitterpacheriana among oak
upupanaSouthern woods
- G. campoliliana among sallow
obtusanaLancashire
- P. tetraquetrana woods
immundana ...woods
- E. Pfulgiana.....
- gallicolana ...Darent
- C. strobilana ...woods, among spruce
- " splendulana on oak trunks
- " argyranaon oak trunks
- " nemorivagana moors, and Scotch
mountains
- " Hercyniana ...among spruce
- " distinctana...Westmoreland, Cum-
berland, Norfolk

IMAGOS]**MAY**

- C. vacciniana ...among bilberry
 R. turionana.....among Scotch fir
 S. perlipedana ...among grass, and
 low bushes
 " internana.....among furze
 " composana ...in clover fields
 " germanana ...woods in the S.
 D. sequanadry fields and rail-
 way banks
 " plumbana.....
 P. Rheediana ...in hawthorn hedges
 C. albersana.....woods
 " ulicetanaamong furze
 " aspidiscana ...knocks about if kept
 long in a box
 X. Fabriciana ...
 L. reliquana.....woods
 " servillana.....woods in the S.
 E. maculosana ...woods
 " Degreyana ...Norfolk
 " curvistrigana woods in the S.,
 among ragwort
 " vectisana
 " udanamarshes, &c.
 " notulanafens, and marshes
 " rupicolana ...marshes
 " ciliata
 " pallidanacliffs
 " anthemidana chalk districts
 X. Zoegana
 hamana
 A. Beaumanniana among rushes, in
 damp places
 " zephyrana ...South coast
 " maritimana, e. on the coast
 C. Francillonana on the coast
 stramineana...chalky places
 T. hyemanaoak woods
 D. fagellaon trees
 P. villosella (nigricans) e. New Forest
 " opacella, e....New Forest, Wither-
 slack, Rannoch
 " calvella (fuscata) e.
 " pulrella, e ...heaths, the larva
 feeding on grass
 S. inconspicuella
 S. emortuella ...Cheshire
 " cloacellaWitherslack
 T. imellaLytham
 " rusticellaamong cloth, &c.
- T. monachella ...Cambs
 " ganomella ...hedges
 " bistrigella ...on birch twigs
 " ruricella
 L. luzellaYorks
 I. masculella ...among hawthorn
 " capitella, e....
 M. calthellain fl. of Caltha
 palustris, and buttercup
 " mansuetella, e. Windermere
 " allionella, e. among vaccinium
 " Thunbergella
 " purpurella ...among birch, and
 Scotch fir
 " salopiella.....among birch
 " Sparmannella among birch
 " subpurpurella, e. among oak
 " fastuosella ...among nut
 N. Smammerdammella, e. on trees,
 among heath
 " Schwarziella in hedges, &c.
 " PilellaYorks, Scotland,
 Lake District
 " metaxella.....Yorks, Scotland
 A. fibulellain veronica fl. These
 " "long horns" fly in the sunshine
 " rufimittrella ...in wet meadows,
 and bogs
 " viridella, e.in hedges, and
 among oak
 S. comptella.....among sloe
 " griseocapitella among birch
 " pyrellain hawthorn hedges
 V. virginipunctella Guildford, Becken-
 ham
 A. decemguttella Darenth
 C. pyraustella ...has occurred in
 Sutherlandshire
 P. xylostellaamong Cruciferæ
 " porrectella, e. in gardens
 G. velocellaamong sheep's sorrel
 " ericotellamoors, &c.
 " longicornis ...in bare, burnt places
 " diffinellaamong sheep's sorrel
 " desertellaon coast sand-hills
 " acuminatella among thistles
 " mundellasands, on the coast
 " proximella ...among birch, and
 alder, on moors
 " notatellaamong sallow

IMAGOS]

MAY

- G. luculellaamong oak
 " scriptellaamong maple
 " ethiopellaon moss
 " solutellaRannoch, Lizard
 " littorellaBirkenhead, Isle of Wight
 " aleelaWest Wickham
 " triparellaamong oak
 " cerealellaamong grain
 " anthyllidella among Anthyllis,
 and clover
 " Hermannella in fens, and on the coast
 " næviferella ...
 " pictellacoast sand-hills
 " brizellaabout thrift
 " intaminatella railway banks
 " gracilella, e....
 " umbrosella .. coast sands
 M. fasciellaCambs, Lewes
 ustulellanear Worcester
 H. Geoffroyella, e.
 D. sulphurella ...
 G. minutella ...in hay lofts
 " trisignella.....
 " stipella.....among dead fir trees
 " grandella, e....Llangollen, Bewdley
 Forest [N.
 " subaquilella ...Lancashire and the
 " tinctellaGravesend, Darenth,
 W. Wickham
 " flavifrontella Cambs, Wither slack, &c.
 B. grandipennella among furze
 P. Lewenhoekella
 R. Erxlebenella among lime under-wood
 " pronubella ...has occurred in Sutherlandshire
 G. fuscoviridella
 " Haworthella in the N.
 " Schoenicolella, e. in the Norfolk fens, and at the Lizard
 Fischeriella ...
 A. dentellaCambs, Sanderstead, &c.
 P. obscurepunctella
 T. sericiella
 " stanneella.....among oak
 A. conjugella ...among mountain ash
- A. mendicella ...on sloe
 " arceuthinella among fir, and juniper
 præcolella ...Sanderstead
 O. pinariellaamong Scotch fir
 G. alchimiella ...
 " elongellaamong alder, and yew
 " tringipennella...among Plantago lanceolata
 " syringella.....in gardens, among lilac
 " omisellaamong Artemesia vulgaris
 " auroguttella ...among Hypericum quadrangulum
 " imperialella ...Cambs, Dorset Hoffmanniella
 Kollarieilla ...
 O. avellanella ...among nut
 Devonella ...has occurred near Dawlish
 " anglicellaamong hawthorn
 " betulævorella among birch
 " torquella ...among sloe
 " Scoticella.....in mountain ash
 Loganella ...in the N.
 guttella.....among apple
 C. albicostella, e. among furze
 " murinipennella... among Luzula sylvatica
 " virgaureella ...
 " viminetella ...
 " graminecolella among ragged robin
 limosipennella among elm
 C. orichalcella, e.
 L. miscella ...among sun cistus
 " epilobiella ...from Aug., among willow herb
 " subbistrigella from Aug.
 C. flavicapitella among hawthorn
 A. modestella ...among Stellaria holostea
 " fuscociliella ...among nut
 C. festaliellaamong blackberry
 A. Pfeifferella ...among Cornus san- guinea
 S. Brunnichella in chalk pits, among Clinopodium vulgare
 E. poellaamong Poa aquatica

IMAGOS]

MAY

- E. Kilmunella ...moors, marshes, and bogs, among coarse grass
,, cinereopunctella many of the genus
are found among carices, coarse grass, &c.
,, trapeziella ...
Gregsonella...
,, nigrella.....
,, subnigrella, e.
humiliella, e.
Bedellella.....
perplexella ...
subobscurella
zonariella
gangabella, e.
taeniatella
obliquella.....Grange
Megerella.....
cerussella ...among reeds, in marshes, &c.
biatomella ...in wet places
ruficinerella ...among grass
subochreella...moors
cygnipennella, e.
- T. marginata (emyella) among black-berry
angusticolella...among rose
- L. roborellamany of the genus
are found flying in the early morning
- ,, hortella
,, amyotella.....among oak
lantanella.....
trigutella
,, quinqueguttella...among dwarf sallows
nigrescentella
irradiellaamong oak
Bremiella.....
insignitella ...Castle Eden, &c.
lautellaamong oak
vacciniella ...
cavellaW. Wickham
pomifoliella ...among hawthorn,
and apple
corylellaamong nut
spinicolella ...among sloe
faginellaamong beech
torminella ...
salicicolella ...among sallow
- L. vimenetella ...
,, carpinicolella among hornbeam
,, ulmifoliella ...among birch, &c.
spinolella
quercifoliella among oak
,, Messaniella ...among evergreen oak
corylifoliella among hawthorn
Caledoniella in the N.
,, viminiella.....among sallow
,, alnifoliella ...among alder
Heegeriella ...among oak
Cramerella ...among oak
tenella
,, sylvella (acerifoliella) among maple
emberizepennella
Frolichella ...among alder
Dunningiella Yorks, &c.
,, Nicelliella ...among nut
Stettinella ...among alder
Klemannella Preston, &c.
Schreberella among elm
tristrigella ...among elm
trifasciella ...among honeysuckle
scabiosæcolella Surrey
comparella ...
C. spartifoliella among broom
laburnella.....among laburnum
,, Wailesella ...among Genista
,, lotellaamong Lotus major
,, lathyrifoliella among vetches
orobiellaScarborough
O. reliquanear Thetford
B. aurimaculella among Chrysanthemum leucanthemum
,, cidariellaamong alder
,, ulmella.....among oak, &c.
,, crataegifoliella...about hawthorn hedges
Demaryella ...
,, Boyerellaamong elm
,, hippocastanella
cristatellaamong yarrow
N. atricapitella...among oak
,, perpygmæella
,, pomella
,, oxyacanthæcolella
,, viscerella
,, catharticella...
,, Septembrella among hypericum
,, intimellaWitherslack, Bristol

IMAGOS]

<i>N. argyropezella</i>	<i>N. splendidissimella</i>
" <i>trimaculella</i> ...	" <i>apicella</i> .....amongst aspen
" <i>floslactella</i> ...among nut	" <i>ruficapitella</i> ...among oaks
" <i>salicivorella</i> ...among sallow	" <i>castanella</i>
" <i>myrtillella</i> ...	" <i>luteella</i>
" <i>microtheriella</i>	" <i>æneofasciella</i> Darlington, Wither-
" <i>betulicolella</i> ...	slack
" <i>ignobilella</i> ...among hawthorn	" <i>sorbiella</i>
" <i>argentipedella</i>	" <i>aucupariella</i> ...among mountain ash
" <i>acetosella</i> .....Witherslack, Isle of	" <i>ulmivorella</i> ...among elm
Wight	" <i>tilælla</i>
" <i>plagicolella</i> ...	" <i>centifoliella</i> ...among roses
" <i>prunetella</i> ...Scarboro'	<i>T. pulverosella</i> ...among wild apple
" <i>tityrella</i>	<i>P. microdactylus</i> among <i>Eupatorium</i>
" <i>malella</i> .....among wild apple	<i>cannabinum</i>
" <i>atricolella</i>	" <i>tetradactylus</i>
" <i>arcuosella</i>	" <i>Hodgkinsoni</i>
" <i>gratiosella</i>	" <i>pentadactylus</i> among <i>Convolvulus</i>
" <i>marginecolella</i>	<i>arvensis</i> , and <i>Calystegia sepium</i>
" <i>alnetella</i> .....among alder	<i>A. polydactyla</i> ...from Aug.
" <i>glutinosella</i> ...	

MAY

JUNE

OVA]

"The leafy month of June" is one of the most prolific in insect life, and consequently the number of species obtainable is now reaching its maximum. Many eggs laid this month soon hatch, so that vigilance and activity will have to be exercised to secure the kinds which may be desired.

THE WEATHER.—As it is sometimes important, in fixing the time for an entomological excursion, to know the weather we are likely to have, the chief signs upon which it may be fore-casted are subjoined:—

A dark blue sky indicates fine weather.

A rosy sky at sunset, whether clear or cloudy, presages fine weather; a bright yellow, wind; a pale yellow, wet; a sickly-looking greenish hue, wind and rain; a dark or Indian red, rain.

A grey sky in the morning, fine weather; red, bad weather, or much wind, perhaps rain; a high dawn, wind; a low dawn, fine.

Soft-looking, or delicate clouds foretell fine weather, with moderate or light breezes; hard-edged, oily-looking clouds, wind. Generally, the softer the clouds, the less wind (but perhaps more rain) may be expected; and the harder, more greasy, rolled, tufted, or ragged, the stronger the coming wind will prove. Small inky-looking clouds foretell rain; light-scud clouds driving across heavy masses show wind and rain; but if alone, they indicate wind only. High upper clouds crossing the sun, moon, or stars in a direction different from the lower clouds, or the wind felt below, foretell a change of wind in their direction. After fine clear weather, the first signs in the sky of a coming change are usually light streaks, curls, whisks, or mottled patches of white distant cloud.

Dew is an indication of fine weather; so is fog. Remarkable clearness of atmosphere near the horizon, distant objects being rendered unusually visible, is a sign of wet, if not wind.

- | | | |
|--------------------|--|--|
| P. Machaon | on underside of leaf-lets of <i>Peucedanum palustre</i> , in fens | A. Euphrosyne on dog, and sweet violet; bluntly conical; dull greenish at first, afterwards brownish |
| L. sinapis, b. ... | on <i>Vicia cracca</i> , and <i>Orobus tuberosus</i> ; long, standing on end, curved, yellow white | " <i>Selene</i> .....on dog, and sweet violet |
| P. crataegi..... | on hawthorn, sloe, and orchard trees | M. Artemis .....on scabious, plantain; upon the underside of leaves nearest the ground; yellow |
| A. cardamines ... | on fl.-stalks of Cardamine, <i>Erysimum</i> , &c.; bright orange | " <i>Cinxia</i> .....on <i>Plantago lanceolata</i> ; in batches |
| C. Edusa | white clover (<i>Trifolium repens</i>), lucerne, &c. The egg laid up to this time produces the imago in August | V. cardui, e. ....on thistles; by preference <i>Cirsium lanceolatum</i> and <i>carduus arvensis</i> ; low down on the plant; s. nettle |

OVA]

- S. Semele.....on *Triticum repens*
 C. Davus, e.....on *Rhynchospora alba*
 " Pamphilus ...on small mat grass (*Nardus stricta*)
 L. agestison *Erodium circutarium*
 " Alsus, e.on *Anthyllis vulneraria*; upon the calyx, low down
 " Arion, e.on thyme ; at the base of the florets ; round, flattened, and depressed in the centre, greenish white ; hatch within two or three weeks after being laid
 N. Lucinaon primrose, and cowslip ; pale glaucus
 H. Paniscuson plantain
 M. stellatarum....on *Galium Mollugo*.
 The egg is deposited while the moth is on the wing, curling its abdomen so as to place the egg upon the undersurface of the leaf
 " fuciformis ...on honeysuckle, upon the underside of the leaf
 H. hectuson *Pteris aquilina*. The eggs of the *Hepialus* are laid loosely over the plant, while the moth is on the wing ; at first white, but soon turn black; globular
 " lupulinuson dead nettle, &c.
 " velleda.....on *Pteris aquilina*
 " humuli.....on various plants
 Z. trifoliion trefoil, and vetches. The eggs of the *Zeuzera* are laid in heaps ; yellow
 " loniceraeon clover, & grasses
 " filipendulae, e. on crowfoot, trefoil, &c.
 C. dominula ...among houndstongue, scattered loosely ; rather small
 E. russula..... ..on plantain, heath, &c.
 C. plantaginis ...on violets, plantain, &c. The eggs of the *Chelonia* are deposited in regular batches upon the leaves; globular, straw colour

JUNE

- C. caiaon nettle, & various plants
 " villicaon chickweed, furze, &c. ; pearly
 O. pudibunda ...on hop, oak, &c. ; in regular batches
 " gonostigma ...on oak, nut, sallow, bramble
 B. quercus (callunæ) scattered over heath, bilberry, &c., as the moth flies ; globular, large
 E. advenaria ...on dogwood, and probably wild rose, and bilberry
 B. rhomboidaria in crevices of bark of various trees ; long, dark green
 P. baiulariaon oak ; large, oval, brownish
 E. omicronaria...on maple ; oblong, red
 A. remutataon ——? has been laid in confinement upon *Polygonum aviculare*, which plant the larva will eat ; red
 C. temerataon sloe, wild cherry; upon the shoots, and in crevices of the bark
 S. belgariaon heath, upon the shoots ; rather large, brick-shaped, lead coloured
 F. pinariaon Scotch fir, and larch ; on the higher branches, upon the needles, in a row
 S. dealbata, e....on grasses ; bright orange
 S. sacrariaon dock, chamomile, and other Compositæ ; long, narrow, oval, and flattened
 L. adustataon spindle ; oblong, oval, pinkish brown
 E. albulataon yellow rattle ; upon the bracts
 " decolorata ...on fl. of *Lychnis dioica* ; two or three eggs upon a fl.-head ; yellow
 M. ocellataon *Galium* ; large
 M. sociata..... on *Galium Mollugo*. Deposited singly on the food-plant

OVA]

- M. montanataon primrose
- " galiiataon *Galium sextatile*
- A. rubidata, e....on *Galium*
- C. munitataon groundsel
- C. corylata, e....on sloe, lime; large, oval, pearly
- L. griseataon *Sisymbrium Sophia*
- P. lacertulaon birch ; upon the twigs
- " unguicula, b. on beech ; upon the leaf, generally on stunted and pollard trees
- D. furcula.....on sallow, willow, poplar ; upon upper surface of leaves, in groups of two or three ; black, small
- " bifidaon poplars, willows, sallows ; upon upper surface of leaves, in groups of two or three ; black, small
- " vinulaon willows, poplars, sallow ; upon upper surface of leaves, in groups of two or three ; chocolate brown
- P. palpina.....on poplars, and sallows
- N. camelina ... } birch ; on underside
" dictæoides } of leaves ; white
- " dromedarius } on poplars, and
- " dictæa} sallows
- " ziczac} sallows
- " trepida.....on oak ; laid sparsely upon the leaves ; pale
- A. leporina, b....on the bark of birch, poplar, alder, sallow ; light purple
- " strigosa.....on hawthorn ; upon the twigs
- " rumicison plantain, and other low plants ; upon the leaves
- " myricæon sallow ; rather large, quite flat on the base, round and globular above, pink, speckled with purple, and a distinct spot of this colour in the centre
- S. venosaon reed grass ; upon the leaves, and stems

JUNE

- L. commaon *Dactylis glomerata*, and other grass, and sorrel ; in clusters upon the stems
- M. albicolon.....on *Atriplex*, and *Chenopodium*
- A. basilineaon immature wheat; in the ears
- A. segetumon *Cruciferæ*, &c.
" *exclamationis* on grass, cabbage, &c.
- " *corticea*on *Chenopodium*
- N. plectaon *Galium verum*, and *Asperula odorata*
- D. carpophaga, e. on fl.-heads of *Silene inflata*, and *Lychnis*
- " capsophila ...on fl.-heads of *Silene maritima*
- " capsincolaon fl.-heads of *Lychnis*, and *Silene*
- " cucubalion fl.-heads of *Silene inflata*, *Lychnis*, and *Cucubalus*
- " cæsia.....on fl.-heads of *Silene maritima*
- E. luciparaon brake fern, male fern, nettle, plantain, primrose, sallow, dandelion, &c. ; in a row, upon the back of the leaf
- H. chenopodii ..on *Chenopodium rectilinea*on sallow, bilberry, bramble ; upon the leaves
- C. umbratica ...on sowthistle, lettuce ; upon the leaves
- A. luctuosaon small convolvulus ; upon stems, and fl.-buds
- H. barbalison oak, and birch catkins ; globular, pale greenish yellow
- C. pratellusprobably in moss, growing amongst grass ; " oval, more pointed at one end, pale yellow, and ornamented with slight longitudinal ridges, connected by slight cross-bars ; " probably laid loosely, as it is supposed most of the genus are

LARVÆ]**JUNE**

Strange and new will be the larval forms of many species which will be met with in this and the last month, if the collector works as the tempting time, which will soon pass away, should prompt him ; and the regular posting up of the entomological diary, with the due labelling of unknown or local species, for future identification, will be highly desirable.

From the end of this month to August, the delicate green larva of *P. Machaon* may be found in fens and marshes, feeding on umbelliferous plants. This, the largest of our Butterflies, never thrives when removed from its marshy habitat ; all attempts to naturalize it in other localities having failed. Towards the end of the month, *G. rhamni* may be found of all sizes on the two buckthorns, *R. catharticus* and *R. frangula*. Sloe bushes in the neighbourhood of woods should be beaten this month for *T. betulæ*.

C. ligniperda may be taken at night by visiting the trees which can be seen to have been bored by this strong-smelling three-year wood-feeder. If roughly handled, it feigns death for some time. *T. cratægi* are extremely various in their appearance. Though hawthorn is their food-plant, they will eat many other plants. They often die whilst changing their fourth skin. *L. trifolii* is seldom found far from the coast ; and when a number are removed from their habitat, there is generally a large per-cent-age of deaths. *L. griseola*, *L. quadra*, *L. lurideola*, and *M. miniata*, should not be sought for later than the beginning of this month, or perhaps better at the end of May, as all these species are often full-fed at that period, and if left too late, may be found to be ichneumoned.

E. fuscantaria may be beaten from its food-tree, small, at the end of the month. Ash is its favourite food, but it will also eat privet. Old junipers in gardens, shrubberies, and on hills, should be searched to the middle of this month for *E. sobrinata*.

P. palpina has a knack of wriggling off the branch it is on, as soon as the branch is touched. *P. Cassinea* lies close along the petiole of a leaf, and is not easily seen. Though elm and nut are its favourite food, it will eat of almost any tree ; as also will *P. populi*. *P. Cassinea*, although not generally full-fed until this month, is sometimes more forward ; it should, therefore, also be looked for in May.

X. lithoxylea, *M. strigilis*, *M. literosa*, *G. trilinea*, *C. Morpheus*, and many others, may be found on elder, red currant, beans, &c., by visiting them with a lantern at night. *M. oxyacanthea* is easily found at night. It falls to the ground the moment it is touched. *B. notha* is more frequently found on aspen than sallow. When full-fed it eats some depth into rotten wood, and then assumes the pupa state.

<i>P. Machaon</i> , e...	<i>Peucedanum</i> pa-	<i>P. rapæ</i>	<i>turnip</i> , and other
	<i>lustre</i> , and other <i>Umbelliferæ</i> ;		<i>Cruciferæ</i> , <i>tropæolum</i> , &c.
	in fens	" <i>napi</i>	<i>rapeseed</i> , and other
<i>L. sinapis</i>	<i>Vicia cracca</i> , and	" <i>Cruciferæ</i>	
	<i>Orobus tuberosus</i>	" <i>Daplidice</i>	<i>Reseda lutea</i> , and
<i>P. brassicæ</i>	<i>cabbage</i> , and other		<i>R. luteola</i>
	<i>Cruciferæ</i> , <i>tropæolum</i> , &c.	<i>G. rhamni</i>	<i>buckthorn</i>

LARVÆ]**JUNE**

- C. EdusaDutch clover, lu-
cerne, &c.
- A. Paphia, b.from Aug., dog, and
sweet violet
- " Aglaia, b.from Aug., dog, and
sweet violet, and wild hearts-
ease, on hill-sides, and sea-side
sand-hills
- " Adippe, b.from Aug., dog, and
sweet violet
- " Latonafrom Aug., violet,
and wild heartsease
- V. c-albumnettle, elm, hop,
sloe, currant
- " urticæ, b.nettle ; in batches,
on the underside of the leaves ;
green
- " polychloros .. elm, osiers, sallow,
aspen, *Pyrus aria*, and fruit
trees ; s. the eggs are laid in the
autumn, and the young larvæ
hibernate
- " Antiopewillow, birch, pop-
lar, nettle
- " Ionettle
- " Atalantanettle, generally in
sheltered places
- " cardui*Cirsium arvense*, and
other thistles; will also eat nettle,
mallow, scarlet bean, &c.
- A. Irisfrom Aug., sallow,
poplar
- E. Medeafrom Oct., moorland
grasses
- S. *Ægeria*, 2.... grasses
- " Megæra, 2 ...grasses
- " Semelifrom Aug., quaking
grass, couch grass, &c. ; on dry
hill-sides, and sea-shore sand-
hills
- " Tithonusfrom Aug., annual
meadow grass, &c.
- " Hyperanthus from Aug., *Aira*
caspitosa, annual meadow, mil-
let, and other grasses, in and
near woods
- C. pamphilus ...grasses
- T. querqus, b.oak. See last month
- " w-album, b.wyttch elm
- " prunisloe
- T. betulæsloe, birch; generally
on stunted bushes
- P. hippothoegreat water dock ;
formerly in the Cambridge
fens
- Phlæasdock, ragwort, sorrel
- L. *Ægon**Ornithopus perpu-*
llus
- " Corydonfrom Oct., Hippo-
crepis comosa, &c.
- " Argiolusholly, and probably
also on buckthorn. The eggs
have been laid on the fl.-stalks,
rather close to the fl. ; the larva
feeds first on the fl., then on the
green berries. Some have been
found on the underside of the
leaves, in which they had eaten
shot-holes. It spins up closely
adhering to the underside of a
holly leaf; the butterfly appear-
ing in Aug., as the second, or
autumnal brood
- H. comma*Ornithopus perpu-*
llus, *Lotus corniculatus*, and
other Leguminose, in rolled-up
leaves
- " lineafrom Aug., grasses.
Conceals itself by drawing the
edges of a blade of grass together
- " Actaeonin *Calamagrotis epi-*
gejos
- D. lineata*Galium*, vine, &c.
- S. chrysidiformis r. of dock, and
sorrel. Supposed to be 2 years
feeding up
- Z. meliloti, b.from July, *Lotus*
corniculatus, vetches, &c. ; par-
tial to chalky soils
- N. senexlichens ; in fens, and
bogs
- " mundanalichens; on top stones
of walls
- C. miniatafrom Aug., lichen,
on oaks (*Lichen caninus*) ; also
withered sallow, and oak
- L. muscerdalichens, on sallow,
in fens
- " pygmæolalichens, among
moss

LARVÆ]

- L. caniola *Lotus corniculatus*,
and other Leguminosæ; prefers
the fl. On the Continent on
lichens upon roofs. Spins up on
underside of pieces of bark
- " deplana lichens, on yew,
oak, beech, spruce; may be
beaten from the trees
- " lurideola from Aug., lichens,
on ash and elm
- " complana from Aug., lichens,
on sloe, and fir
- " griseola, b. from Aug., lichens
on poplar; will also eat with-
ered sallow, &c.
- " stramineola (var.) from August,
lichens, on sloe, oak, sallow,
&c.
- " quadra lichens, on oak,
beech
- D. pulchella *Myosotis arvensis*
- C. caia from Sept., various
plants
- L. dispar sloe, hawthorn, and
various fruit trees
- " monacha oak, beech, birch,
fir, apple, &c.; hides in the
crevices of the bark
- D. coryli beech, and several
other trees; generally beaten
from beech
- T. crataegi hawthorn, sloe, sal-
low, birch, oak, plum
- P. populi oak, poplar, lime,
ash, hawthorn
- E. lanestris hawthorn, sloe, &c.;
in large nests of silk on hedges,
&c.
- B. neustria sloe, hawthorn, fruit
trees, &c.; in large nests of silk
- " castrensis, e. on *Artemisia mari-
tima*, and *Daucus maritimus*;
will also eat knotgrass, chrysanthemum,
wild cherry, and
various trees, if sprinkled with
salt water. Feeds in the sun-
shine
- " roboris from Sept., hawthorn,
dogwood, bramble, broom,
heath, &c.

JUNE

- B. trifolii from Sept., trefoil,
clover, broom, furze, grass,
raspberry, &c.; attached to the
coast
- E. versicolora ... birch
- E. vespertaria ... nut
- " apicaria nut, poplar, willow,
sallow, alder
- R. crataegata..... from Sept., haw-
thorn, sloe
- P. syringaria..... from Sept., lilac,
privet, elder, honeysuckle
- S. illunaria willow, ash, haw-
thorn, oak, plum, &c.
- " illustraria..... oak, birch, ash,
beech, maple
- E. tiliaria oak, sallow, birch,
alder, &c.
- " fuscantaria, e. ash, privet; eats
round holes in the leaves
- " erosaria oak, birch, &c.
- " angularia oak, birch, ash,
beech
- P. pilosaria oak, elm
- N. zonaria on *Ammophila*
arundinacea, and other sand-
hill plants
- " hispidaria..... oak
- B. hirtaria..... lime, elm, ash, and
fruit trees
- A. prodomaria... oak, birch, elm, nut
- H. abruptaria ...lilac, rose, privet
- C. glabraria lichens, on fir
- B. perfumaria ...ivy, lilac, clematis,
&c.
- " abietaria, b....from Sept., larch,
and spruce; has been found on
whortleberry; will also eat
birch, and oak
- T. biundularia oak, birch, &c.
Vary very much
- D. obfuscata..... from Sept., heath,
vetch, &c.
- M. cineraria..... lichens, on walls
- P. cytisaria, b....broom and *Genista*
anglica, on heaths, forests, and
waste places on the coast
- I. vernaria, b. ...from Sept., *Clematis*
vitalba
- H. thymiaria, b. hawthorn, oak

LARVÆ]**JUNE**

- H. auroraria, b. from Aug., plantain
 A. strigaria, b. (?) — ? Will eat
 knotgrass
 " strigilatafrom Aug., Clematis,
 Stachys, &c.
 " imitaria*Galium* ; will also
 eat sorrel
 P. petrariabrake fern
 S. sacraaria.....dock, chamomile
 A. gilvariafrom Sept., *Achillea*
 millefolium, &c.
 L. marginatasallow, willow, aspen
 H. leucophearia oak, maple
 " aurantiaria ...oak, birch, haw-
 thorn
 " progeomaria oak, birch, hornbeam
 A. æscularia.....oak, elm, lime, sloe,
 hawthorn, horse chestnut, apple,
 privet, &c.
 C. boreatabirch, in a curled-up
 leaf
 O. dilutataoak, and other trees
 L. multistrigaria *Galium*
 " rufincinctata ...*Saxifraga granulata*,
 and *S. hypnoides* ; has also
 been found on fruit trees, pep-
 permint, and sage
 E. consignata ...fruit trees, oak, nut,
 &c.
 " pygmæata ... *Stellaria holostea*,
 fl. ; will also eat *Cerastium*
 tomentosum, fl.
 " pusillataspruce
 " irriguataoak, sloe
 " pimpinellata seeds of *Pimpinella*
 magna, and *P. saxifraga*, also
 Angelica
 " dodoneata ...oak
 " abbreviata ...oak
 " sobrinatajuniper
 " pumilatafl. of *Anthriscus syl-*
 vestris, gorse, marjoram, asters,
 clematis, &c.
 L. polycommata honeysuckle, ash
 T. simulatajuniper
 M. rubiginata ...alder
 M. rivata*Galium Mollugo*
 " sociata*Galium Mollugo*
 " fluctuatacabbage, horse-
 radish, nasturtium, &c.
- A. badiatadog rose
 " derivatadog rose, honey-
 suckle
 " berberata ...barberry
 P. lapidata— ? will eat clematis
 " vitalbata, e.*Clematis vitalba*
 S. dubitatabuckthorn
 " vetulata, b.buckthorn; between
 united leaves
 " rhamnata, b. buckthorn, birch ;
 between united leaves
 " certatabarberry ; between
 united leaves
 C. immanata ...bilberry, alder, birch,
 strawberry, &c.
 " prunatacurrant, gooseberry,
 sloe, &c.
 " dotatablack and red currant
 E. cervinaria ...mallow, hollyhock
 " mensuraria ...grasses
 " lineolata*Galium verum*, on
 the coast ; will also eat G.
 sexatilis and G. *Mollugo*
 C. imbutatacranberry ; also eats
 whortleberry
 C. spartiiatabroom ; feeds under
 the leaves, in which it makes
 holes. Is a cannibal in con-
 finement
 P. lacertulabirch ; between
 united leaves
 " siculaoak, birch, lime
 " hamula, e.oak, birch
 " unguicula, e. beech ; generally on
 pollard and stunted trees
 C. spinula, b.hawthorn, sloe,
 mountain ash
 P. Cassinea, b....oak ; s. elm, lime,
 sallow ; grips its food-plant
 tightly
 " nubeculosa ...birch ; stale, dryish
 food is stated to suit the larva
 best, in confinement ; two years
 in pupa
 P. plumigera ...maple ; will also eat
 sycamore
 P. palpina, e.willows, sallows,
 poplars
 N. carmelita.....birch
 " dictæa, e....poplars, sallow, willow

LARVÆ]**JUNE**

- N. ziczac poplars, sallows, willow, alder
 Chaonia, m. oak
 D. cæruleocephala hawthorn, sloe, apple
 C. diluta oak, birch; between united leaves
 " or poplars ; between the leaves
 " flavicornis ... birch, in rolled up leaves ; cannot be beaten out
 " ridens oak; between united leaves
 A. leporina birch, poplar, alder, sallow
 " megacephala poplar
 " rumicis bramble, plantain, and other low plants ; will eat knotgrass
 " auricoma bramble, bilberry, birch, oak
 " menyanthidis Menyanthes trifoliata, Myrica gale, heath, bramble, sallow
 N. fulva in stems of Carex, and Poa aquatica
 " Hellmanni, b. in r. of common reed
 " neurica in stems of common reed
 " geminipuncta in stems of common reed. Holes covered with silk from within are visible on stems containing larvæ
 " lutosa from Oct., in stems of common reed, near the r.
 H. nictitans at r. of Tussilago, Cyperacæ, &c.
 " petasitis in stems, and r. of butter burr, and burdock
 " micacea at the base of leaves of Carex, and inside stems, and r. of Equisetum arvense, and E. fluviatile, and dock
 X. lithoxylea ... grass, and other plants
 X. conspicillaris Lotus corniculatus, and other low plants
 C. graminis r. of grass ; hides under stones
- L. cespitis grasses; hides among the r. by day
 C. exulis, b. various species of Poa
 M. furva grasses, especially Aira canescens
 " brassicæ cabbage, dock, Chenopodium, chrysanthemum, &c.
 M. strigilis grasses, and other plants
 " literosa slender foxtail grass, and other plants
 " furuncula Festuca, slender foxtail grass, and other plants
 " arcuosa, b. Aira caespitosa
 C. Haworthii ... Eriphorum vaginatum
 A. suffusa r. of spinach, lettuce, radish, &c.
 " cursoria Euphorbia esula, sandwort, sea violet, &c.
 " nigricans plantain, clover, &c.
 " tritici roots of sandwort, sea violet, and other low plants
 " præcox sandwort, sea violet, chickweed, and other low plants, on the coast; also dwarf willows. May be traced, and dug up in the sand, in which it burrows
 T. pronuba from Aug., dock, and other plants
 N. glareosa dock, sorrel, broom
 " subrosea Myrica gale, sallow
 " rubi low plants
 T. piniperda Scotch, and other firs
 T. gothica sallow, hawthorn, oak, &c.; also dock, nettle, laurel, broom, lilac, &c.
 " leucographa plantain
 " rubricosa dock, elm
 " instabilis sloe, sallow, willow, oak, dock, and other low plants
 " opima willow, sallow, rose
 " populeti poplars, especially Populus nigra; between united leaves
 " stabilis oak, elm, hawthorn, &c.

LARVAE]**JUNE**

- T. gracilis.....willow, sallow, low plants
 " miniosaoak, and birch, when young ; then hawthorn, and low plants
 " mundaoak, elm, poplar
 " crudaoak, nut, sallow ; also other caterpillars
 O. epsilon, b.willow, poplar
 " lota, b.willow, sallow, poplar
 A. pistacinabuttercup, dock, &c.
 Spins a tight, neat earthen cocoon, in which it remains some weeks before pupation
 " liturameadow sweet, and other low plants ; also oak, willow, alder
 C. vacciniielm, oak, sallow, willow, and low plants
 " spadiceasloe, hawthorn, and honeysuckle when young ; later on various low plants
 S. satellitiaoak, &c. ; between the leaves ; also other caterpillars
 D. rubiginea.....apple, dandelion, and other low plants
 H. croceago.....oak
 X. citrago.....lime, between united leaves
 " silagosallow
 " autagobeech ; hides in the chinks of the bark
 " gilvago.....wytch elm (seeds)
 " ferruginea ...sallow, aspen (buds), wytch elm (seeds)
 C. xerampelina ash
 T. retusa, b.sallow, poplar, willow ; between the leaves
 E. fulvago.....oak, birch
 D. oooak, between united leaves
 C. trapezinaoak, birch, hornbeam, &c. ; also other caterpillars
 " diffiniselm; between united leaves
 E. ochroleuca ...Dactylis glomerata
- D. capsophila ... Silene maritima (seeds) ; will also eat S. inflata ; may be found this month in all stages of growth
 P. xanthomista Plantago maritima, campion, violet, harebell, &c. ; found amongst the r. by day ; feeds on the fl., &c., at night
 " flavocincta ...chickweed, groundsel, mint, everlasting pea, &c., plum, &c.
 D. templiHeracleum sphondylium ; inside the stem, and r.
 E. nigraCalium Mollugo, plantain, dock, chickweed, grass
 " viminalissallow
 " licheneafrom Nov., ragwort, and various low plants, on the coast
 V. oleaginasloe ; in shady places, and skirts of woods
 M. oxyacanthea hawthorn, sloe
 A. Aprilinaoak ; hides in bark crevices during the day
 H. saturahoneysuckle
 " protea, b.oak
 " dentina.....roots of dandelion
 " peregrina.....Chenopodium, and Salsola kali
 X. lithorizahoneysuckle
 C. solidaginis ...bilberry ; will also eat hawthorn
 C. vetusta.....poplar, and various meadow, and marsh plants
 " exoleta.....scabious, campion, rest harrow, dock, Eryngium maritimum, turnip, asparagus, &c.
 X. lambdaMyrica gale ; on moors
 " furcifera, m....alder, birch
 " rhizolitha.....oak
 " petrificata ...oak, lime, birch
 C. verbasciVerbascum, and Scrophularia aquatica. Most of the Cucullia feed in the sunshine
 " scrophulariae ...Scrophularia nodosa

LARVÆ]**JUNE**

- C. chamomillæ.....chamomile, fl.,
Pyrethrum inodorum, and P.
maritimum. Basks in the sun-
shine. Has been found in
waste places, shipwright's yards,
&c.
- H. armigera.....wild mignonette
- H. arbutiCerastium arvense,
fl. and seeds, forget-me-not, &c.
- A. sulphuralis ...small convolvulus
- A. luctuosasmall convolvulus ;
feeds by night, principally on
the unexpanded fl.-buds
- B. parthenias ...birch; s. beech, and
oak
- " nothaaspen, sallow ; be-
tween united leaves
- P. orichalcea ...Eupatorium canna-
binum
- " bractea.....Eupatorium canna-
binum
- " festucæ.....Carex, reeds, and
grasses ; near the sea
- " iotanettle, dead nettle,
honeysuckle, groundsel, &c.
- " interrogationis nettle
- G. libatrix.....willow, sallow,
poplar
- A. pyramidea ... oak, elm, birch,
willow
- " tragopogonis hawthorn, larkspur,
columbine (seed pods), and low
plants
- T. craccaVicia sylvatica
- C. nuptawillow, poplar
- " promissaoak
- " sponsaoak
- M. salicalis (?) ...sallow, willow
- " rostralishop
- H. derivalisfrom Aug., among
dead oak leaves
- " cribralis, b....from Aug., Carex
sylvatica, and Luzula pilosa
- P. glaucinalis ...in nest-like forma-
tions on the end of birch twigs.
Larvæ, pupæ, and imagos are
all found during this month
- C. angustalis ...moss, on sea shores
- P. punicealis ...Nepeta cataria, fl.
heads
- P. purpuralisMentha arvensis,
between the leaves
- " ostrinalisvar. of P. purpu-
ralis?
- H. cespitalis, e. under leaves of
Salvia pratensis, and Plantago
- A. niveusin a case, under the
leaves of Potamogeton
- P. forficaliscabbage, horserad-
ish, &c.
- S. sticticalisArtemisia, near the
coast
- " cinctalisbroom, clover ?
- S. alpinalisSenecio
- S. lineolathe lichens on sloe,
Parmelia parietana, and P.
olivacea
- C. fascelinellus...at Yarmouth, in the
r. and stems of Triticum jun-
ceum, spinning silken galleries
about the r.
- " paludellus ...Typha latifolia
- C. cicatricellus...bulrush
- " phragmitellus from Oct., common
reed
- S. forficellus.....Poa aquatica
- " mucronellus...common reed
- " gigantellus ...common reed
- I. carnella.....Lotus corniculatus,
fl.
- H. binævella, b. in heads of thistles
- H. senecionis ...mines in stems of
ragwort
- E. pinguis.....under the bark of
ash
- N. genistella ...from Sept., furze ;
also Genista Corsica
- P. dilutellathyme
- " subornatella ..thyme (Zeller) Glo-
bularia vulgaris (Herr Mann),
between the leaves
- " obductella ...in spun-up leaves of
Origanum vulgare, Mentha
arvensis, Melissa acinos
- R. consociella ...oak
- " advenella ...hawthorn
- " suavellasloe
- O. ahenellaunder the radical
leaves of Helianthemum vulgare
- " tumidella.....oak

LARVÆ]

JUNE

- O. rubrotibiella, b. oak
 G. cerellawax, in beehives
 S. Revayana ...sallow (?)
 T. podanarose, fruit trees, &c.
 " rosanaalmost any plant
 " heparanahawthorn, &c.
 " ribeanahawthorn, and al-
 most any tree
 " corylanaplane trees, &c.
 " costanafigwort, and other
 marsh plants
 " viburnana ...Myrica gale, and
 Vaccinium
 " icteranaknapweed, plantain,
 and almost any low plant
 " viridanaoak, birch, &c.
 " adjunctana ...ivy, &c.
 C. pilleriana ...vine, and almost any
 plant
 L. literanaoak
 " niveanabirch
 " Boscanaelm
 P. autumnana ...Myrica, sallow, &c.
 " comariana ...Comarum, Fragaria,
 &c., in boggy heaths, and fens
 " Schalleriana ...hawthorn
 " camparana ...
 " Caledoniana ...Myrica gale
 " variegana.....bramble, hawthorn,
 &c.
 " cristanadwarf sallows, and
 hawthorn, between united leaves
 " Hastiana, e. dwarf sallows
 " maccanaMyrica gale
 " ferrugana.....birch, oak
 " tristana.....guelder rose
 " aspersana.....Potentilla, meadow
 sweet
 " Sheperdana hemp agrimony,
 meadow sweet, in the tops
 " lipsiana (?) ...Myrica gale
 T. caudanawillow, sallow,
 poplars
 D. Bergmanniana, b. rose ; folded
 leaves
 " Foskaleana ...maple, lime
 P. Lecheana.....sallow, willow, oak,
 honeysuckle, &c.
 P. sellanaheads of Centaurea ?
 Cirsium ?
- P. marginana ...teazle heads, and
 probably in seed-heads of various
 Compositæ, in heaths, and fens
 S. roboranarose
 P. tripunctana...sloe, &c.
 A. Udmanniana bramble
 S. euphorbiana...Euphorbia paralias,
 heads
 " littoranasea pink
 " lacunanavarious low plants
 " urticanavarious low plants
 " M. Ratzeburgiana spruce fir, ter-
 minal shoots and needles
 P. rugosanaBryonia dioica
 S. subiectana ...various plants
 " virgaureana ...various plants
 " chrysanthéana various plants
 " penzianathe r. of grass, on
 rocks
 S. ictericana.....almost any low plant
 G. nævanaholly
 " geminana.....in shoots of Vaccini-
 um
 H. angustana ...sallow, and willow
 shoots
 P. corticanahawthorn
 " profundana ...oak
 " occultana.....larch, and Scotch fir
 " Solandriana...birch, alder, nut,
 poplar
 " semifuscana...meadow sweet, and
 dwarf sallow shoots
 E. foenana.....from Oct., in r. of
 Artemisia
 P. mercuriana ...Dryas octopetala
 P. pinicolina ...in shoots of Scotch fir
 D. politanar. of Achillea mil-
 liolum
 " alpinana ? ...tansy, r. ?
 " consortana ...shoots of chrysanthemum
 C. maritimana ...in stems, or r. of
 Artemisia maritima
 " pupillana ? ...in r. of Artemisia
 maritima
 S. vibranaCarduus acanthoides,
 and C. crispus
 C. scintillulana...Scutellaria galericu-
 lata
 X. Fabriciana ...nettle

LARVÆ]

JUNE

- E. Degreyana? in seeds of *Linaria vulgaris*
- X. hamanahas been bred from *Ononis repens*
- C. rutilanain a web, among juniper
- L. phryganella...oak, hawthorn, bilberry, &c.
- T. pseudo-bombycella from Oct., lichen, on oak, beech, &c.; in a long, slender case between united leaves
- P. calvella (fusca) from Aug., on bramble; 2 years feeding up
- S. inconspicuella on tree trunks, and palings
- P. Verhuellea in the indusia of *Asplenium ruta-muraria*, and *Scolopendrum vulgare*
- X. argentimaculella powdery lichens, on walls
- T. tapetrella ...woollen cloth, &c.
" pellionella ...in carpets, cloth, feathers, &c.
" pallescentella in rabbit, hare, and cat skins
- I. muscalellaoak; mines the leaves about this time, then cuts out its case, and feeds on the ground, on all kinds of plants
- I. Zinckenella ...in birch leaves
- S. comptella.....sloe, and plum
- S. crategella ...hawthorn, sloe
- Y. virginipunctella, e. *Sedum telephium*
" plumbella ...spindle
" irrorellaspindle
" padella.....hawthorn, apple, &c.
- P. xylostella.....turnip, &c.
" porrectella ... *Barbara vulgaris*, *Hesperis matronalis*
" annulatella ...*Cochlearia Dalella*.....*Arabis*
- H. vittellaelm
- Y. sylvellaoak
" alpellaoak
" lucellaoak
" horridella.....apple, sloe
- H. scabrella.....apple, hawthorn
- H. nemorella ...honeysuckle
- P. caudellaspindle
- O. sparganiella...stems of *Sparganium*
- P. querellaoak, and between leaves of sallow
- E. Allisella*Artimisia vulgaris*
- D. costosella.....furze, broom, and *Genista* fl.
- " litarellaknapweed
- " pallorella ...in leaves of *Centaurea scabiosa*
- " umbellella ...furze
- " assimilella ...broom
- " arenella*Anthriscus*, thistles, and knapweed
- " subpropinquella thistle
- " Alstræmeriella hemlock
- " vaccinella.....wild carrot
- " capreolella ...wild carrot
- " hypericella ...*Hypericum*
- " conterminella shoots of sallow
- " angelicella ...*Angelica*
- " Yeatesiella ...wild carrot
- " applanella ... wild carrot, and most Umbelliferæ
- " granulosella...*Anthriscus vulgaris*, *Chærophylgium*, and other Umbelliferæ
- " depressella ...seed-heads of wild carrot
- " pimpinella ...*Anthriscus*
- " albipunctella *Chærophylgium*
- " cnicellain *Eryngium maritimum*, and *E. campestris*, on the Continent
- " pulcherimella *Bunium flexuosum* fl.
- " Weirella*Anthriscus*
- " chærophyllivorella *Chærophylgium*
- " ultimella ... wild parsnip
- " nervosella ...parsnip, and *Cenanthe crocata*
- " heraciella ...thistle, *Heracleum*, and parsnip
- " olerellaon *Achillea millefolium*
- P. gibbosella ...sallows
- G. rufescenstellæ in grasses
- " nigraon *Populus nigra*, and *P. tremula*

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- G. temerella... sallow shoots
 " lentiginosella Genista
 " alacellalichens, on fruit trees
 " artemisiella..... thyme, between
 terminal leaves
 " albipalpella...Genista anglica, be-
 tween united leaves
 " affinellaunder moss, on old
 walls
 " rhombella ...in wild apple leaves
 " maculella.....in seeds, and shoots
 of *Stellaria*
 " Hubnerella (?) in oak tumps
 " ocellatella ...*Beta maritima*, fl.
 " atriplicella ...*Atriplex*, and Che-
 nopodium
 " leucatella.....hawthorn, apple,
 mountain ash
 " albicapitella *Genista anglica*
 " vorticella.....*Lotus corniculatus*
 " tæniorella ...*Lotus corniculatus*,
 and other Leguminosæ, between
 united leaves
 " sircomella ? ...*Cerastium vulgatum*
 " atrellain *Hypericum* stems
 " naeviferella ...in leaves of *Atriplex*,
 and *Chenopodium*
 " Hermannella in leaves of *Atriplex*,
 and *Chenopodium*
 " subdecurtella *Lythrum salicaria*
 " ericinellaheath
 " Knaggsiella, b., in seed capsules
 of *Stellaria holostea*
- P. neuropoterella from Oct., in heads
 of *Cirsium acaule*
- C. striatellatansy, in the stem
- C. conscriptella ? birch
- A. spartiella.....furze
- N. Durdhamella *Origanum*, in rolled-
 up leaves
- A. granitella ...*Inula dysenterica*,
 in the leaves
- G. Haworthella *Eriphorum*, seeds
- " equitella ...in shoots of *Sedum acre*
- A. spinellain mountain ash
 sorbiella ... mountain ash, shoots
- C. farinatella ...Scotch fir, in the
 leaves
- O. pinariella ...Scotch fir, in the
 leaves
- Z. saxifrage, b. on *Saxifraga azoides*,
 &c.
- G. stigmatella ...in sallow, willow,
 poplar
 " tringipennella in plantain
 " syringella.....ash, privet, and lilac
 " auroguttella...willow herb, and
 Hypericum
- Kollarieilla, e. mining leaves of
 C. Brogniartella oak
- C. alcyonipennella *Centaurea*, bur-
 dock, and thistles
- vibicella*Genista tinctoria*
 " conspicuella...*Centaurea nigra*, &c.
- pyrrhulipennella heath
- anatipennella sloe
- niveicostella...thyme
- genistæcolella *Genista anglica*
- saturatella ...from Sept., broom
- onosmella, b. *Echium vulgare*
- troglodytella *Inula dysenterica*,
 Eupatorium cannabinum
- murinipennella rushes
- albitarsella ...*Origanum*
- nigricella.....hawthorn, sloe, apple
- gryphipennella rose
- viminetella .. sallow, and osier
- litupennella...oak, birch
- ardeepennella, e. oak
- artemisiella .. *Artemisia*
- B. præangustella sallow, willow, pop-
 lar ; between united leaves
- O. v-flavellain fungi, and wine
 corks
- C. Illigerella, b. *Ægopodium poda-*
 graria, in crumpled leaves
- " chærophyllella, e. most Umbelli-
 feræ
- L. miscellasun cistus
- " conturbatella *Epilobium angusti-*
 folium, among terminal leaves
- " epilobiella ...*Epilobium hirsutum*,
 tops
- " decorellain stems of *Epilo-*
 bium montanum, *E. parviflorum*,
 E. palustre, *E. hirsutum*, &c.,
 producing gall-like swellings
- H. Rössella*Atriplex* and *Cheno-*
 podium

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- A. modestella ...in seeds of *Stellaria*
holoscea
A. Pfeifferella .. dogwood
E. atricomella ...in stems of *Dactylis*
glomerata
" Megerella ... in *Brachypodium*,
Bromus, *Aira*, &c.
" adscitellain *Sesleria cœrulea*,
and *Aira caespitosa*
" rhyncosporella *Eriphorum*, and *Carex*
" triatommella ...in a fine grass
" pollinariella...*Brachypodium syl-*
vaticum
" cygnipennella *Dactylis glomerata*,
and other grasses
T. marginellain bramble
L. quinqueguttella in dwarf sallows
P. suffusellain poplars
" salignella.....in willows
C. Wailesella ...in *Genista tinctoria*
B. maritimella ...*Tripolium vulgare*
" artemisiella ...*Artemisia campes-*
tris, and yarrow
N. sericeopeza ...sycamore
" poteriella.....*Poteriam sanguisorba*
- N. centifoliella...*Rosa centifolia*, and
R. canina
" ulmivorella ...elm
T. pulverosella in wild apple
P. rhododactylus in fl. of rose
" Bertrami, b. *Achillea millefolium*,
and A. ptarmica
" acanthodactylus *Bartsia*, and rest
harrow
" hieracii*Hieracium umbella-*
tum, and *Teucrium scorodonia*,
first biting through the stems,
and causing the leaves to wither
" laetus*Audryala sinuata*,
on the Continent
" pilosella*Hieracium pilosella*
" phædodactylus rest harrow
" Lienigianus...*Artemisia vulgaris*
" spilodactylus *Marrubium vulgare*
" brachydactylus *Lactuca muralis*,
&c.
" baliodactylus *Origanum vulgare*
" tetradactylus...thyme
" dichrodactylus tansy
A. polydactyla...honeysuckle, buds

PUPÆ]

The various modes in which the metamorphosis of pupation is carried out in the Lepidoptera constitute a most interesting subject of study; and in the months succeeding those most prolific in insect life that variety is seen to perfection. The forms, indeed, seem—

"Numerous as shadows haunting fairly
The brain, new stuff'd, in youth, with
triumphs gay
Of old romance."

The peculiar mode of concealment known as "the cocoon," variously worked out, is more especially seen in the summer months, at least in the species we have been able to tabulate; while in those changing towards the autumn the subterranean form becomes more common. While some species are remarkable for the little trouble they take in effecting this change—simply spinning a few threads, or even dispensing with these—others are conspicuous for the care and labour they put into the work. Although some of the changes are peculiar to some families, it is found to be impossible to make simple form of pupation a basis for classification. While some cocoons are as flimsy as a cobweb, others are as tough as horn, with intermediary forms of texture both numerous and remarkable; yet all are the result of fluid exudations woven into form and substance by the caterpillar. While the pupæ of some, even

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of the commonest species, are conspicuously exposed without covering, and therefore fully open to injury or destruction, those of others are carefully swathed in silk, and surrounded by almost indestructible coverings, and ingeniously concealed, or buried in the earth,

"Far from the sun and summer gale."

It is the business of the collector, by acquiring a knowledge of the habits of as many species as possible, to learn their secrets, and "by his so potent art," to bring them to the light of day, for his own and others' advantage.

- | | | |
|-----------------------------|--|--|
| A. Paphia | on a stem of bramble,
or some low shrub, in woods | L. <i>Ægon</i> , e..... among <i>Ornithopus perpusillus</i> , at the base of the plant-stems |
| " <i>Aglaia</i> , e. | among violet, and
wild heartsease, on hillsides,
&c. ; suspended by the tail
within an enclosure of spun
leaves, on the top of the plant,
or attached to stalks of bent
grass, &c. | " <i>Artaxerxes</i> , b. slightly attached to
stems of <i>sun cistus</i> , near the ground |
| " <i>Adippe</i> | among, or near
violets | Z. <i>æsculi</i>in r., branch, or
twig of elm, pear, &c. |
| " <i>Latona</i> | among dog violet,
or sweet violet | L. <i>asellus</i>spun up, on a leaf |
| M. <i>Athalia</i> , b.... | suspended, among
plantain, &c. | P. <i>statices</i>spun up, on sorrel |
| V. <i>c-album</i> , b.... | suspended, among
nettle, and on walls, &c. | Z. <i>minos</i>oval cocoon, attached
to stones |
| " <i>urtice</i> | suspended, among
nettle | " <i>trifolii</i>cocoon on stem of
grass, &c. ; yellow |
| L. <i>sibylla</i> , e. | suspended, on stems
of fern, underside of leaf of
honeysuckle, &c. | " <i>meliloti</i>cocoon on grass
stems, &c. ; pale yellow |
| A. <i>Iris</i> | has been found sus-
pended from underside of oak,
and sallow leaf, and neigbouring
objects | " <i>lonicerca</i>cocoon on stem of
grass, &c. ; some yellow, some
white |
| A. <i>Galatea</i> | attached to timothy,
and other grass | " <i>filipendula</i> ...cocoon on stem of
grass, &c. ; white |
| E. <i>Medea</i> , e. | among moorland
grass, near the ground | N. <i>albulalis</i>probably in the
leaves of bramble, or ash |
| S. <i>Semele</i> | under r. of <i>Aira</i> , and
<i>Triticum</i> , and clods, on dry
banks | S. <i>irrerella</i> , b.in a slight web, under
stones, oyster, cockle, mussel
shells, &c., covered with ground
lichen; on the coast, just above
the tide mark |
| " <i>Ianira</i> |) attached to a
<i>Hyperanthus</i> , e. } blade of grass, &c. | C. <i>miniata</i>spun up, under moss,
on lichen-covered trees |
| C. <i>Davus</i> | among, or near
<i>Rhyncospora alba</i> ; freely sus-
pended | L. <i>deplana</i>spun up, on lichen-
covered trees |
| T. <i>w-album</i> , b. | at wytch elm ; fas-
tened on a leaf, or twig | " <i>lurideola</i>spun up, on lichen-
covered trees, and old walls |
| | | " <i>molybdeola</i> ...spun up, under
stones, or moss |
| | | " <i>complana</i>under moss, on lichen-
covered sloe, and fir, and on
rocks, on the sea shore |
| | | " <i>griseola</i>under moss, on lichen-
covered poplars, &c. |

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- L. quadra, e.....on palings, near lichen-covered trees, in crevices of bark, or between leaves
- E. grammica ...cocoon between leaves of food-plant
- C. dominula.....spun up, near its food-plant
- C. caiain a slight cocoon, amongst leaves, &c.; on palings, &c.
- L. chrysorrhæa in a slight cocoon, amongst leaves, &c.
- " aurifluain a slight cocoon, on palings, &c.
- O. fascelinaspun up, among dwarf sallow
- E. lanestris, e. ...to Jan.; hard, oval cocoon on the ground, near hawthorn, sloe, &c.; s. remains in pupa many years
- B. neustriain cocoon among, or near sloe, hawthorn, and fruit trees
- L. quercifolia ...in a dark, papery cocoon, amongst leaves, &c.
- O. potatoria.....papery cocoon, on, or near coarse grass
- O. sambucata ...cocoon, hung among ivy, &c.
- E. vespertaria undermoss, on nut, &c.
- " apicariaunder moss, on poplar, willow, sallow
- M. margaritata at various trees; on the ground
- P. syringaria ...fastened to a twig, or under a leaf, or blade of grass; the caterpillar skin is often found hanging from the long-tailed pupa
- C. elinguaria ...between leaves of honeysuckle, hawthorn, sloe, &c.; on the ground, or under moss
- E. angularia.....under moss, on oak, birch, beech, &c.
- N. zonariasub., on sand-hills
- " hispidaria ...to Jan., at oak
- C. glabaria ...at fir
- B. abietariasub., at larch, and spruce
- G. papilionaria, b. in a transparent cocoon, among leaves, and moss, on various trees
- I. vernariain loose cocoon, amongst leaves, in, or near Clematis vitalba
- A. rusticatasub., at ____?
- " incanariasub., at ____?
- " ornatasub., near thyme
- " straminata ...on heaths, in a loose cocoon, near, or on the ground
- " emutariain marshy places
- " inornataspun up, among leaves of poplar, willow, and heath
- H. vauariaspun up, among leaves of gooseberry, currant, &c.
- S. dealbatain shuttle - shaped cocoon, on grass stems
- A. grossulariata, b. between united leaves of gooseberry, currant, sloe, nut, &c.
- E. subciliata.....about maple
- " rectangulata on apple, and crab; under moss, and loose bark
- T. firmata.....in a cocoon, among fir
- Y. elutata, b. ...amongst seed-down of sallow, and moss, &c., on nearly every kind of tree
- C. sagittataspun up, about Thalictrum, or on the ground, near; in fens
- " prunataon currant, and gooseberry; between leaves
- " testataspun up, among leaves of birch, sallow, poplar; generally on heaths, in the North
- C. spinula.....spun up, among hawthorn, and sloe
- C. curtula.....spun up, between dead leaves of poplars, and sal-low
- P. palpinaat willows, and pop-lars; on edges of streams; or under sods
- L. impuraamong Dactylis glomerata; on the ground

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X. polyodon, b. under clods, and stones	P. iotaamongst the leaves
M. abjecta.....under clods, and stones, in an earthen cocoon	M. of nettle, dead nettle, &c.
A. unanimis.....under bark of willows ; in damp places, and among decayed willow wood	A. pyramidea, b. at oak, elm, birch, willow ; cocoon on the ground, in spun up, withered leaves, &c.
M. arcuosa, b. ....at the crown of r. of <i>Aira cæspitosa</i>	M. maura .....spun up, under loose bark, &c.
" ripæ, b. ....sub., near <i>Cynoglossum officinale</i> ; on the coast ; found by raking sand-hills	C. sponsa, e. ....at oak ; among the leaves on the tree
" cursoria .....by raking sand-hills, on the coast	H. cribralis .....among sallow, <i>Luzula pilosa</i> , and <i>Carex sylvatica</i>
T. Orbona .....among broom, and low plants ; on the surface	P. glaucinalis ...among birch twigs
O. upsilon, b. ....under bark, or spun up, at r. of willow, and poplar	C. fascinellus...in cocoons, just under the sand, among <i>Triticum junceum</i>
C. xerampelina sub., at ash ; cocoon very tender, and brittle ; s. the larva remains unchanged in the cocoon for several weeks	A. lotella .....among <i>Festuca ovina</i> , and <i>Aira canescens</i>
T. subtusa .....sub., at poplar	G. canella.....from Oct., among <i>Salsola kali</i>
E. fulvago .....spun up, in dead leaves, &c. ; and probably s. sub., at oak, and birch	H. queranca.....in a boat-shaped, light green cocoon, amongst oak leaves
D. oo .....at oak, on the ground ; in an oval cocoon	A. Bennetii .....on <i>Statice limonium</i>
C. trapezina, e. at oak, birch, horn-bean, &c. ; among leaves, on, or near the surface	P. ochroactylus on tansy
D. capsophila ...to April, sub., about <i>Silene maritima</i> ; on the coast	" parvidactylus on thyme, and hawkweed
" capsincola ...to April, about " <i>Silene maritima</i> ; on the coast	" plagiadactylus on scabious, and speedwell
E. viminalis .....sub., near sallow	" fuscodactylus on speedwell
" lichenea .....sub., by <i>Sedum acre</i> , &c. ; near the coast	" lithodactylus on fleabane
P. bractea.....near the r. of <i>Eupatorium cannabinum</i>	" tephradactylus on golden rod, in shady places
" festucæ.....amongst grasses, reeds, &c. ; near the coast	" osteodactylus on golden rod
	" galeodactylus on burdock
	" pentadactylus on convolvulus
	" spilodactylus, e. on <i>Marrubium vulgare</i>
	" tetradactylus on thyme
	" pentadactylus on convolvulus
	" dichroactylus on tansy

IMAGOS]

Every available place where the Lepidoptera "most do congregate" will now, during this, the most prolific month in the year for the perfect insect, be eagerly scanned by the collector desirous of making the best use of his time. The sun is near his meridian, and long and brilliant days promise excellent sport, if we are only properly endued with that "fiery quality,"

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energy. As some species can be more readily taken early on sunny summer mornings, the hours of sleep should not be unduly prolonged. Some stern poet cynically says :—

“ Nature requires five ;
Custom gives seven ;
Laziness takes nine ;
And wickedness eleven ! ”

And though we shall, of course, meet with many species “ of no mark or likelihood,” we can scarcely fail in a fair locality to be rewarded with some good prizes. Many butterflies commence flying at seven o’clock in the morning on hot days. In day searching, the beating-stick will be a *sine quâ non*; but low bushes and herbage should not be beaten from the top, but rather from beneath, otherwise many species which are concealed therein are only driven lower down. Not much good will attend the beating of thatch this month. The food of the larvae of the species required, especially where it occurs in some plenty, should have special attention paid to it. Flowers, especially *Silene*, *Lychnis*, honeysuckle, and ragwort, are often a great attraction. The lime, and other trees which blossom this month, should be sought for and examined. *Cossus* infected trees, and gummy exudations from fruit trees are alike a fascination, both for butterflies and moths. Day sugar-ing, as well as by night, has been recommended, and where flowers are scarce is generally successful. Many species may be smoked out of grass, bushes, and banks by ignited touch-paper. Among those species which do not travel quietly when boxed are *T. rubi*, *H. hectus*, *A. velleda*, *C. plantaginis*, *T. derasa*, and *T. batis*.

At that charming time, when

“ the twilight shadows grow,
And steal the rose-bloom genial summer sheds,”

many species start out from their hiding places, and remain on the wing for a short time only. Then is the “ witching time ” to catch them ; and in some favoured places local species appear in swarms at such times.

At night, when

“ The dark, delightsome woods lie veiled and still,”

many fragrant flowers become extra fragrant, and additionally attractive to moths. The following are more especially of this character :—Wallflowers, lime blossoms, the butterfly orchis, the fragrant orchis (occurring on chalky heaths) the musk mallow, and the yellow bedstraw. The lure of “ sugar,” too, at this time may be used with advantage, especially where there are few flowers ; or the flowers themselves may be sugared, more particularly in places where there are no trees. Large bare tracks may be thus made to yield a good harvest. If pieces of white paper are placed near the trees, &c., when they are sugared, they may be readily seen and identified in the dark in the successive visits which are paid to them in the course of the night. The French are said to use putrid soapsuds as a bait, as the sugar in France, which is made from beet, is not attractive, from having no smell. Artificial light is also a great means of capture. A bright light placed near a partially-open window is recommended.

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Many species may be found at rest on tree trunks, and palings and fences near. *S. fagi* is a prize well worth the search. It rests almost as if set out on the tree, and from the light brown of its ample, serrated wings forming a contrast to the dark trunk on which it rests, it can sometimes be discovered a good distance off. It is useless looking for it (or indeed for any other species which rest on trunks) among very young trees. The difficulty generally is in first finding a species, as the eye does not exactly know what it is looking for, and mistakes many of the stains and marks on trees and palings for insects; but having once seen the desiderated species, the eye, thus educated, will ever afterwards quickly detect it. The number of markings on trees and wooden fences which resemble moths is surprising; but when we know the species we are looking for, and the exact appearance they present when spread out flat, as they generally are, little difficulty is felt in rapidly making a thorough examination of a large number of trees. After having looked at a tree or fence, and found nothing, it is desirable to give it a parting tap with a stick; like the magic wand of a harlequin it will sometimes bring forth something we little expected.

- P. Machaon ...fens, and marshes
- P. cratægi, e. ...near woods, &c.
" brassicæ ...gardens, &c.
- " rapægardens, &c.
" napigardens, &c.
- A. cardamines...fields, &c.
- C. Edusalucerne, and clover fields, and railway banks ; fond of fl.
- A. Paphia, e. ...woods
" Aglaia, e. ...hillsides, coast sand-hills, &c.
- " Niobe, ♂ b....hillsides, in company with Aglaia, or Adippe. Has occurred in Kent, the New Forest, and near Windermere
" Adippe, e. ...woods
- " Euphrosyne, b. woods, &c.
" Selenewoods, &c.
- M. Artemiswet meadows
" Cinxia
- " Athaliawoods, and heaths
- V. c. -album, e. gardens, hopgrounds, &c.
" urticæ, e.gardens, fields, &c.
- L. sibylla, e. ...woods, parks, forests
- E. epiphronin marshy hollows, on mountain sides
- S. Ianira, e.fields, &c.
" hyperanthus woods, &c.
- C. DavusNorthern moors
" Pamphilus ...fields, &c. .
- T. w-album, e. flies over trees, and is attracted by fl. of bramble, lime trees, grass, &c.
" pruniwoods, at fl. of privet, &c.
- P. Phœas.....fields, lanes, coast sand-hills, &c. ; at fl. ; rests on sorrel, &c., at night
- L. Artaxerxes (var.) at St. Arthur's seat, &c.
" agestishilly fields, &c.
" Alexisfields, hills, &c. ; rests on grass stalks, &c., in dull weather, and at night
" Alsushilly fields, railway banks, coast sand-hills, &c.
" Ariondry, hilly fields, where thyme abounds, and deserted stone quarries, in hilly districts ; rests on grass stems, &c., in dull weather, and at night
- N. Lucina, b. ...woods, and banks near, where primrose abounds
- H. sylvanuswoods, hills, &c.
Paniscus, e....woods
- S. ocellatus ...
" populi{ on trees, palings,
" tilia{ &c., come to l.
" ligustri
- D. euphorbiae ...has occurred on the coast, and at Killiney, Ireland, among Euphorbia

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- C. porcellusmay be found on patches of *Galium verum*, or on the ground, near ; hovers over fl. at early dusk, and comes to sugar
- " elpenorat honeysuckle, yellow flag, and other fl., and at light
- " nerii
- M. fuciformis, b. flies in the sunshine, and hovers over fl., from 9 till 11 a.m., and 3 to 4 p.m.
- " bombyliformis flies in the sunshine, and hovers over fl., seldom after 1 or 2 p.m.
- S. myopeiformis on old apple, and pear trees, and fl., bushes, and palings near
- " culiciformis...on birch
- " formicaformis, b. in, and near withy beds ; flies in the sunshine ; fond of sunning itself on leaves
- " chrysidiiformis, e. on the S.E. coast ; flies from about 9 to 11 a.m., and 3 to 4 p.m. ; "booms along like a burnet"
- " ichneumoniformis by sweeping the fl. of rushes, &c., on slopes on the coast ; hovers over fl.
- " cynipiformis...at rest, on oak ; s. in coppices
- " muscaeformis on the coast, among sea pink
- " tipuliformis.....among currant bushes ; flies in the sunshine, and rests on the leaves
- " scoliæformis...
- " sphegiformis, b. at rest, on alder, and low plants ; hovers over fl. ; also flies in the evening
- " asiliformis ...
- " apiformis.....on poplars ; liable to be mistaken for a hornet
- M. arundinis ...among reeds ; emerges from the pupa generally at about 10 p.m.
- Z. æsculion trees, &c.
- C. ligniperda ...on trees, and palings
- H. hectusflies at dusk
- H. lupulinus.....flies just before dusk
- " velella.....on walls, and in crevices of birch trunks
- humuli.....in fields, &c.
- L. asellus, e.
- " testudo.....may be shaken from young oaks ; the ♂ flies in the sunshine
- P. statices, b. ...in damp meadows
- " geryonon grassy hill-sides ; flies in the sunshine
- " globulariæ, m. in grassy places ; very local ; generally appears on the 14th, or 15th
- Z. minosflies in the sunshine, during the early part of the day ; afterwards rests on fl.
- " nubigenaflies in the sunshine
- " trifoliiflies in the sunshine
- " meliloti, e.smaller, slenderer, and less densely clothed than trifolii, and the marginal border of the hind wing narrower
- " lonicæreflies in the sunshine
- filipendulae ...flies in the sunshine
- S. phegeaon old ramparts
- N. ancilla
- N. cucullatella ...at rest, on trees, and palings
- " confusalis.....at rest, on trees, &c.
- " strigula.....
- S. iriorellaon the coast
- L. mesomella ...on trees, &c.
- " aureola, b.rests on larch trunks, high up, and may be beaten from trees
- " deplanabeaten from yew, larch, &c.
- " lurideolaat fl.
- " griseolacomes to fl.
- " stramineola (var.) by damp wood-sides, ditches, and fens
- " rubricollis ...flies in the sunshine, over trees, &c. ; s. perches on grass
- E. grammica, e. on heaths
- D. pulchella.....has been taken in fields, flying by day
- E. jacobæa, e.gardens, fields, &c. ; flies in the sunshine

IMAGOS]

- C. dominula*at rest
E. russulaon heaths
C. plantaginis ...on hills, and in
 woods near
 " *villica*, e.comes to L.
A. fuliginosa.....
 " *mendica*, b.at rest
 " *lubricepeda* ...gardens, &c.
 " *menthastis* ...gardens, &c.
 " *urticæ*in wet places
L. disparformerly found at
 large, but now the breed seems
 to be entirely maintained arti-
 ficially
O. pudibunda ...in gardens, &c. ;
 flies about 11 p.m.
 " *fascilina*on heaths, &c.
 " *conosoma*.....fens, and marshes
 " *gonostigma*...local
D. corylibeech woods, &c.
B. rubiheaths, &c. ; s. flies
 in the afternoon sunshine, and
 in the evening
 " *roboris*, e.flies at dusk; more
 frequently met with in the larva
 state
L. quercifolia ...hedges, &c.
E. vespertaria ...flies from 7, to 9, or
 10 a.m.
 " *advenaria* ...among bilberry, and
 grass, in wood ridings; hides
 low down in the herbage, but
 is easily disturbed
R. crataegata ...hedges, &c.
V. maculatawoods; flies by day
A. prunaria, m. woods; flies in the
 sunshine, also at dusk
M. margaritata hedges, &c.
E. fasciaria, e.beaten from fir trees;
 flies at night
E. dolobria, b. woods; rests ex-
 posed on leaves of bushes, &c.,
 and may be beaten from oak
P. syringaria ...gardens, &c. ; flies
 at dusk, over fl.
S. lunaria, b.woods
A. betulariaat rest
H. abruptaria, b. gardens, &c. ; at
 rest, on palings, tree trunks,
 &c.; comes to L.

JUNE

- C. viduaria*
 " *lichenaria*, e. on lichen-covered
 oak trunks
B. repandata ..gardens, &c.; comes
 to sugar; rests on tree trunks
 " *rhomboidaria* gardens, &c. ; on
 palings, and trees
 " *perfumaria* ...
 " *cinctaria*on tree trunks
 " *robورaria*on oak trunks
 " *consortaria* ...on tree trunks
T. extersaria ...at sugar
 " *punctulata*, b.
B. fuliginaria
P. cytisariaheaths, forests, and
 waste places, on the coast;
 beaten from broom, furze, and
 heath
G. papilionaria, e. woods, forests, fens;
 flies at dusk; may be beaten
 from trees, in the day time; has
 been found among brake fern
N. viridata, b....mosses, and fens
I. lacteariawoods; flies by day;
 soon fades
P. baiulariaflies at dusk, 10 or
 12 feet high; the ♀ attracts the ♂
H. thymiaria ...beaten, from hedges
E. porata, b.woods
 " *punctaria*.....woods
 " *trilinearia*flies in the sunshine,
 among beech
 " *omicronaria*...beaten, from maple
 " *orbicularia* ...beaten, from birch
 " *pendularia* ...woods; beaten, from
 trees
H. auroraria.....in fens, &c.
A. luteata.....woods
 " *candidatea*.....woods
 " *sylvata*.....woods
 " *Blomeraria* ...on wooded hill-sides,
 near wytch elms; at rest, on tree
 trunks; soon disturbed
E. separataamong alder
V. cambricaria, e. at rest, on rocks
A. ochrataon the Kent, and
 Essex coasts
 " *perochraria* ...near Redhill
 " *rubricata*heaths, and coast
 sand-hills; flies at dusk

IMAGOS]

- A. scutulatahedges, &c.
- " bisetatahedges, &c.
- " trigeminata ...
- " contiguaria ...Conway, Bangor, &c.
- " herbariata ...has been found in
herbalists' shops
- " osseataPortland, among
various plants. The Isle of
Portland is an excellent locality
for the Acidalia
- " dilutaria, e....
- " interjectaria...Bristol, & Thetford
- " incanariaon palings, &c., near
gardens
- " circellata ...near Manchester
- " ornataon grassy hill-sides,
&c.
- " promutata ...woods
- " straminata ...
- " subsericeata beaten, from wild
rose
- " strigaria (?) ...bushes, on hills
- " immutata ...fens, &c.
- " remutatawoods
- " fumataheaths, in the North
- " emutariasalt marshes of Kent,
Norfolk, and New Forest.
Flies at dusk. The Sheerness
specimens are more tinged with
rose colour than the others
- " aversatawoods, &c.
- " inornata, e....found on fir trunks.
- " . Flies at dusk
- " degeneraria...at rest, on various
plants, and the face of the rock
at Portland
- " emarginata, e.
- T. amatarialanes, and fields
- C. pusaria ... } woods
exanthemaria }
- C. temeratawoods, &c.; near
wild cherry and buckthorn
- taminatawoods
- M. alternata, b. woods
- " notatawoods; on birch
trunks
- " liturata.....beaten, from larch
- S. clathrataclover, and saintfoin
fields, &c.
- P. petraria

JUNE

- N. pulveraria ...
- S. belgariaon heaths
- F. atomariafields, woods, heaths,
fens
- " piniariaflies in the sunshine,
round fir trees
- " pinetariaScotch heaths; flies
in the sunshine
- " conspicuata...on broom
- M. euphorbiata woods
- S. dealbataflies in the sunshine
- L. purpuraria ...on dry hills, in the
North ; flies by day
- A. grossulariata gardens, and hedges
- ulmataedges of woods
- L. adustataamong spindle
- L. marginata ...woods
- L. didymata.
- " cæsiata.....Scotland. Comes to
sugar
- " salicata, b. ...
- " olivatawoods
- " pectinataria ...in hedges; comes to
sugar
- E. affinitatabeaten, from bushes,
near woods
- " alchemillata...
- " albulaamong yellow rattle
- " decorata ...flies at dusk, at fl. of
Lychnis dioica
- " tæniata, e. ...
- " unifasciata ...at l., has occurred
at Forest Hill, West Wickham,
and Cheltenham
- " ericetataat fl., on heaths;
flies by day
- blandiata
- E. venosataamong Silene inflata,
and Lychnis, and on palings
near
- " consignata...in apple orchards;
rests on the trunks
- " linariataamong toadflax
- " pulchellata ...among foxglove
- " centaureata ...on palings, &c., and
among ragwort
- " subfulvata ...at fl.
- " subumbra ...Cambs, Yorks
- " plumbeolata... at l.
- " isogrammata

IMAGOS]

JUNE

- E. pygmaeata ...flies in the sunshine, among long grass, and settles on low fl.
 " satyrata
 " egenata
 " castigataon palings, &c.
 " valerianata ...among valerian
 " trisignata
 " lariciataamong larch
 " virgaureata, b.
 " albipunctata
 " irriguatabeaten from trees ; also at rest, on birch trunks
 " fraxinataamong ash
 " indigatain fir woods
 " innotataat Wallasy
 " nanataon heaths
 " subnotata.....often on the banks of rivers
 " campanulata at fl., in woods, &c.
 " absynthiata ...
 " knautiata.....has been taken by Mr. Gregsonat Bull Hill, Bolton
 " tenuiatabeaten, from sallows
 " dodoneata ...flies in the early morning sunshine
 " exiguata
 " togataat rest, on tree trunks
 " rectangulata at rest, on apple, and pear trees, and palings
 " debilitata.....may be beaten from grass, on wood-paths
 C. sparsataflies round sallows, in the evening
 L. sexalataon tree trunks, in hedges, and by beating
 " viretataon birch, and firtrunks
 T. variataamong larch
 V. ruberata
 " elutata, e. woods ; flies high, when disturbed
 M. ocellata
 " albicillata ...
 M. hastatamay be beaten, from birch, and other trees ; flies in the sunshine, generally after 2 p.m. When flying high, it may be brought within reach by throwing a clod, &c., at it, as it is very combative
- M. procellata ...may be beaten, from clematis
 " unangulata ...beaten, from hedge-banks
 " montanata ...woods
 " galiatabeaten, from bushes
 A. sinuataCambs
 " rubidata
 C. munitatafond of settling on the underside of fallen trees
 " propugnata ...woods
 " ferrugatawoods
 " unidentaria ...
 " quadrifasciaria, e. on palings, &c.
 C. bilineatahedges
 P. tersataamong clematis
 " lignata
 " vitalbata, b....among clematis
 S. velutataamong buckthorn
 " rhamnata ...among buckthorn, and at light
 " certataamong barberry, and at rest on palings, &c.
 " undulatawoods
 C. picatabeaten, from bushes
 " corylatawoods
 " russatawoods
 " silaceataamong willow herb
 " prunata
 " fulvatabeaten, from bushes
 " dotata, e.near woods
 E. mensuraria ...in grassy woods
 " palumbaria ...at light
 " lineolatarests on coarse grasses, on the coast
 A. plagiata
 L. griseataon the Norfolk coast, among Sisymbrium
 S. obliquaria ...among broom ; does not fly till between 10, and 11 p.m.
 T. chærophyllata flies in the sunshine, in grassy places, near woods
 P. lacertulabeaten from birch
 " sicula, b.
 " hamula.....flies in the day time, generally in the morning; beaten from oak
 " unguicula, b. flies in the day time
 C. spinula.....on palings, &c.

IMAGOS]

JUNE

D. furcula	{ rest on willows, " bifida	L. turca, in grassy woods
" vinula		" lithargyria, e.
S. fagi, at rest, on tree trunks, and palings; generally in old beech woods		" obsoleta, in marshes
P. bucephala, at rest; at light		" littoralis, on coast sand-hills; settles on tufts of Ammophila arenaria
G. crenata, formerly at Epping, and Halton, Bucks.		" pudorina, marshes, and fens
P. palpina, at light		" comma
N. camelina, at light; hides on fronds of fern, and in, and on trees		" straminea, marshes, and fens
" cucullina, e. s.		" impura
" bicolora, has been taken at Burnt Wood, Staffordshire		" pallens
" dictæa, at rest, at base of willows, and large poplars		" phragmitidis, marshes, and fens
" dictæoides		T. Bondii, rests on stems of grass, at night
" dromedarius, at light		M. flammæ, marshes, and fens
" ziczac, hides in bark crevices of poplar		S. ulvæ, marshes, &c.
" trepida, at light, and on oak trunks		N. despecta, the Nonagræ fly at dusk, for about 20 minutes, after which they settle on fl., and on the foliage of their food-plant
Dodonea		" concolor, e. ....fens
T. derasa		Hellmanni ...fens
" batis, e. ....flies over brambles, at dusk		G. flavago
C. duplaris		A. putris, at r. of trees
" fluctuosa	{ do not always travel quietly, when boxed. " or	X. urea
" or		" lithoxylea
" ocularis, e. ....rest, on aspens		" sublustris
D. Orion, e. ....at rest, on oak trunks		" polyodon
A. tridens, rest, on trees, " psi		" hepatica
" leporina, rests on tree trunks, s. high up		D. pinastri
" aceris, on trunks of syca- more, and palings near		N. saponaria, comes to l.
" megacephala, on tree trunks, and palings, among poplars		P. leucophæa ...
" strigosa, Cambs		M. anceps, marshes, and fens
" alni, at sugar		" albicolon, b. ....on the coast
" ligustrì, on ash trees		" furva, e
" rumicis		" brassicæ, hides on walls, pa- lings, &c.
" menyanthidis heaths, &c.		persicariæ, on palings, &c.
" myricæ, at Rannoch		A. basilinea
S. venosa, in fens		" connexa
L. conigera		" gemina

IMAGOS]

JUNE

- M. arcuosa, e. ...flies at dusk, then settles on fl., and the foliage of its food-plant
 P. captiuncula ...at Darlington
 G. trilinea.....
 H. palustris, b. has been taken at l.
 A. caliginosa ...in moist woods
 C. Morpheus ...
 " blandaat fl.
 " cubicularis ...beaten from thatch ; flies in hay fields
 R. tenebrosa...
 A. valligera, e. mostly on the coast ; at fl.
 " Puta
 " suffusa
 " segetum
 " exclamatiois often in kitchen gardens
 " corticea, e. ...comes to l.
 " ripæunder pieces of wood, &c., near the coast
 porphyreaamong heath ; frequents the fl. at night
 " ravida, m. ...
 " pyrophila....at fl.
 T. fimbria.....}
 " Orbona.....} come to l.
 " pronuba ... }
 N. angur
 " plecta
 " c-nigrumcomes to l.
 " triangulum ...
 " brunnea
 " festiva
 " confluua
 " Dahlii
 " rubi
 " baia
 O. Upsilon, e. ...flies over willows
 D. oo.....
 D. irregularis ...at rest, on viper's bugloss, and in crevices of bark of trees
 " carpophaga ...among Silene inflata; flies at dusk, at Silene fl. The whole genus are attracted by fl.
 " capsophila ...
 " capsincola ...among Lychnis
- D. cucubaliamong Lychnis flos-cuculi ; flies in the sunshine
 " albimacula ...
 " conspersa
 " caesia
 " Barrettion the Hill of Howth, Ireland, and Isle of Man
 H. dysodeaat fl. of red valerian
 " serenaon trees, palings, &c., near kitchen gardens
 P. meticulosa ...
 E. lucipara
 A. herbidawoods, &c.; very local
 " occultaat rest ; early in the morning ; unquiet when boxed
 " nebulosa
 " tinctaon trees, and palings ; unquiet when boxed
 " advenaat fl. ; rests on stumps, and trees
 H. adusta
 " glauca
 " dentina.....
 " chenopodii ...at l.
 " atriplicis
 " suasaat sugar, on commons, &c.
 " oleracea
 " pisi
 " thalassini
 " contigua
 " geniste.....
 " rectilineaat rest on stones, &c., on dull days
 C. lychnitis
 " asteris
 " gnaphalii
 " absynthii
 " chamomillæ...rests on railings, &c. ; s. hides under the top edge of a paling
 " umbratica ...at rest, on palings, and at fl.
 H. marginata ...
 " peltigeramay be started from herbage
 " dipsaceaflies over fl., in the sunshine
 A. melanopa ...at Rannoch ; flies in the sunshine

IMAGOS]

JUNE

- A. cordigera.....at Rannoch ; flies in the sunshine
 " myrtilli.....on heaths, &c.; flies in the sunshine
 H. arbuti, b.fields, &c. ; flies in the sunshine
 A. sulphuralis ...wet places, among Convolvulus arvensis ; s. on fl. of knapweed in the day time ; flies quickly a little way, when disturbed
 A. luctuosaflies in the sunshine, over fl. in clover fields, &c. ; on the chalk and limestone
 E. venustula.....
 " fusculas. in fir woods
 B. argentula.....in the bogs of Killarney, and the S.W. of Ireland
 H. uncamarshes, and fens
 M. ostrina.....} in sheltered spots, on parva} sand-hills
 A. urticæ
 " triplasia
 P. chrysitisamong nettle
 " festucæ, s.in fens, sea marshes, &c., and at fl. of Lythrum salicaria
 " iotaamong Glechoma hederacea
 " v-aureum.....over Lychnis fl., &c.
 " gamma.....flies in the sunshine
 " ni
 " interrogationis flies wildly ; rests on rocks, and stumps, in dull weather
 M. typica.....rests on walls, &c.
 T. pastinumbeaten, from bushes
 O. lunaris
 E. mi.} fly in the sunshine, glyphica} and hover over fl.
 P. ænea.....}
 M. salicalisamong long grass, and rushes, in wood-paths, and young underwood ; comes to l.
 H. proboscidalis among nettle
 " crassalis on heaths, among bilberry; may be beaten out of over-hanging banks. in woods ; is very active in the net
 H. albistrigalis... comes to rush fl., and s. sugar
- R. sericealisin damp woods, and marshes
 S. emortualis ...among oak
 H. derivalis
 " barbalisbeaten, from under-growth
 " tarsipennalis woods, &c.
 " grisealis
 A. flexulabeaten, from hedges, &c.
 P. fimbrialis.....at light
 " farinalisat rest, in stables, corn stores, &c.
 " glaucinalis ...in thatch, and at light
 A. pinguinalis ...on walls in stables, houses, granaries, &c.
 " cuprealis, e. occurs in houses
 C. augustalis ...
 P. purpuralis ...flies by day, among grass, &c.
 " ostrinalisflies by day
 R. sanguinalis ...flies at dusk
 E. octomaculalis woods, &c.
 A. nemoralis ...
 E. flammealis ...on sloping hills, and cliffs, near the sea, among fern ; very local
 N. ciliatisin fens
 S. punctalisamong Iris foetidissima
 C. lemnanalisflies over duckweed-covered ponds, at dusk ; comes to light
 P. stratiotis ...beaten, from water-plants ; flies at dusk ; comes to light
 H. nymphæalis } may be beaten from water-plants ; flies
 " stagnalis ...} at dusk
 A. niveusat rest, on twigs, &c., in weedy ponds, and rivers, close to the water's edge, or flying slowly over the surface
 B. pandalisamong grass, &c., in woods, particularly beech
 " verticalisamong nettle
 " lancealisin damp woods, or lanes near
 " fuscalismarshes, &c.

IMAGOS]

JUNE

- B. terrealisamong golden rod
" urticalisamong nettle
E. crocealisamong fleabane
" verbascalis ... among *Teucrium scorodonia*
" sambucalis ... among elder
P. forficulis, e.in gardens
" margaritalis, e. fens, &c.
S. sticticalisat l., and fl.
" palealisamong wild carrot,
and *Peucedanum*, on the S.E.
coast
" cinctalisin clover fields ;
comes to l.
S. alpinalison the tops of moun-
tains, in Perthshire, &c.
" olivalisin hedges
" prunalisin hedges, &c.
L. pulveralis.....among hairy mint
S. hybridalis ... among grass, and
clover
S. ambigualis ...s. at sugar, and at
rest. Many of the genus may be
found at rest, on walls, palings,
&c.
" Zelleribeaten, out of old
willows, and hawthorns
" dubitalis
- " muranaamong heath
" ingratella
- " mercurella
- " atomalisamong heath
- P. cerusellus.....in grassy places,
among shingle
- C. pratelluss. at sugar
dumetellus ...
- " sylvellusin fens, &c. ; local
- " pascuellus ...damp meadows, and
moors ; local
- " uliginosellus, e. in fens, &c. ; local
- " furcatellus ...a mountain species,
in Britain, not below 2000 ft.
- " margaritellus damp, grassy places,
in open woods
- " culmellus.....
- " chrysonechellus among dry grass,
&c. ; local
- " rorellus
- " cassentiellus Brighton, &c.; con-
sidered a var. of *Rorellus*
- C. hortuellus ...among grass, and
moss
- C. phragmitellus marshes, and fens
- S. forficellus.....weedy ditches, &c.
" mucronellus, e. fens, &c.
- A. lotellaon coast sand-hills ;
flies at dusk
- M. cirrigerella ...some specimens were
taken, for the first time, in this
country in 1874, near Marl-
borough, Wilts. They were
found to be very fond of going
into lighted candles. Probably
about the 20th of the month
would be the best time to look
for the species, as some which
were taken (on the 30th) were
worn
- H. nimbellulaamong *Jasione mon-
tana*, and thistles, and ragwort ;
on the coast
- " nebulellaamong *Carduus nu-
tans*, &c. ; very local
- E. elutella.....in grocers' ware-
houses, &c. ; also thatch, and ivy
- " cinerosella ...
" semirufa
- C. bistriga
- P. interpunctella in corn, seed, and
grocers' warehouses, &c.
- N. angustella ...among spindle
- G. canella.....among *Salsola*
- P. betuellaamong birch
" carbonariella among burnt heath,
and birch
- " adelphella ...
- " dilutellain chalky places
- " subornatella
- " abietellamay be beaten from
young fir trees
- P. palumbella ...among heath
- R. formosella ...
- " marmorea ...among sloe
- " tumidella, e. among oak
- O. ahennella
- H. prasinana ...woods
- " quercana ...woods
- T. podana.....hedges
- " sorbianawoods
- " rosanagardens, woods, &c.

IMAGOS]**JUNE**

- T. cinnamomeana Kent, Surrey, Hants
 " heparanahedges
 " ribeana.....
 " corylana, e.... among nut, dog-
 wood, &c.
 " unifasciana ...hedges
 " semialbana ...on the chalk
 " costana.....fens, and marshes
 " viburnana ...boggy heaths, and
 moors
 " viridanaamong oak, &c.
 " ministrana ...woods
 D. Branderiana Essex, Cambs, Hants
 D. Grotiana.....among oak, in woods
 A. Gerningana...heaths, and moors,
 in the N.
 P. permutana ...among Rosa spinosissima
 " comariana ...boggy heaths, and
 fens
 D. Lorquiniana fens
 " Læflingiana... among oaks, in
 woods, and hedges
 " Holmiana ...hedges
 " Bergmanniana..... rose bushes,
 hedges, &c.
 " Foskaleana ...maple, hedges, &c.
 A. Conwayana...
 P. Lecheana.....woods
 D. semifasciana among sallows
 P. picanaon birch trunks
 " capræana.....Kent
 " prælongana ...among birch
 " pruniана
 " ochroleucana among rose
 " cynosbana ...
 " dimidiana ...
 " saucianaSheffield, Leith Hill,
 Hazlemere
 " Grevillana ...Scotch mountains
 " Staintoniana Perthshire, among
 Arctostaphylos uva ursi
 " gentianana ...Gravesend
 " marginana ...damp woods, heaths,
 and fens
 " carbonana (fuligana) woods, and
 fens
 A. salicanaamong sallow, and
 poplar
 S. laricianain larch woods
- S. ocellanaamong alder
 " dealbana
- " neglectana ...among willows, and
 poplars
 " simplanaamong aspen
 " incarnatana ...on the coast
 " suffusanahedges
 " rosæcolana ...in gardens, among
 roses
 " roborana
- P. tripunctana ...
 A. Udmanniana among bramble
- S. achatana
- S. latifasciana ...woods
 " euphorbiiana...among spurge
 " littoranabanks, on the coast
 " abscisana.....at Folkestone, among
 Inula, and thistles
 " cespitanacoast, and other
 sandy districts
 " conchana ...meadows, & marshes
 " Daleanaamong Vaccinium,
 at Rannoch, &c.
 " micana.....marshes
 M. Schulziana ...heaths, and mosses
 " palustrana ...Rannoch, among
 heath
 " Ratzeburgiana among spruce fir
 " rubiginosana Scotch mountains
 " consequana ...South coast, among
 Euphorbia paralias
- R. arcuanaamong young oaks
 E. rufana
- arbutana
- O. antiquana ...corn fields
 " striana dry banks, and
 rough pastures
 " ericotanain clover fields, and
 rough pastures
- E. fractifasciana downs
- P. rugosanahedges, &c., among
 Bryonia dioica
- C. musculana ...hedges
- S. nubilanahawthorn hedges
 " Peteranadry banks
- " subjectana ...
 " virgaureana ...
 " abrasana... ...
 " hybridana ...among elm, and sloe
 " octomaculana rough pastures

IMAGOS]

JUNE

- S. Colquhounana wild hills, on Scotch and Irish coast
 S. ictericana.....hay fields, and sand-hills
 C. favillaceana... in woods, among juniper
 O. rusticanamoors, fens, mosses
 B. uliginosana ...in fens
 " lanceolana ...among rushes
 " furfuranaLancashire coast, Scotland, &c.
 P. siculanaYorks
 " unguicana ...heaths
 " uncanaon heaths, and in Southern woods
 " biarcuana ...among sallows
 " inornatana ...*(subarcuana)* in fens; local
 " paludanafens
 " comptanachalk downs, &c.
 " myrrillana ..moors, among Vaccinium
 " derasanaSouthern woods
 " diminutana ...
 " Mitterpacheriana oak woods
 " upupanaSouthern woods
 " lætanaSouthern woods, among aspen
 G. nigromaculana among ragwort
 " campoliana among sallow
 " Penkleriana...among nut, & alder
 " obtusana
 " geminana.....moors, among Vaccinium
 P. tetraquetana woods
 " Demarniana Southern woods
 H. crucianaamong sallow
 P. bilunana
 " oppressana ...on poplar trunks ; London district, and Norfolk
 " corticana
 " profundana ...
 " sordidana, e.
 E. bimaculana ...
 " cirsiana
 " Pfugiana.....
 " Brunnicchiana
 " turbidana.....
 " scenana.....on the coast, and in fens, among *Artemisia vulgaris*
- E. nigrocostana in lanes, among Stachys
 " signatana
- " grandevana, e. S. Shields, among coltsfoot, on ballast heaps; flies at dusk, and rests on the leaves
- " gallicolana ...Darenth
- " trigeminana...fields, & dry banks, among ragwort
- " obscurana ...Darenth
- O. ulmana
- S. spinianahawthorn hedges
- " rufillana ... among wild carrot
- " Weeberana ...gardens, among plum trees
- C. cosmophorana on fir shoots
- " strobilana ...woods, among spruce
- " splendidulana on oak trunks
- " argyranaoak trunks
- " nemorivagana...moors, Rannoch, Scotch mountains
- " Hercyniana...among spruce
- " distinctana ...Westmoreland, Cumberland, Norfolk
- " ustomaculana
- " ravulana
- " vacciniana ...
- " nanana
- R. Buolianaamong Scotch fir
- " turionana, b.
- " pinivorana ...
- " resinanaPerthshire
- " duplanaPerthshire
- " sylvestrana ...Bournemouth, Kent
- C. grossanaamong beech
- " pomonana ...among apple trees, and bred from bought apples, and pears
- O. funebrana ...bred from bought plums
- E. nigricana.....among peas
- " pisana among peas, and vetches
- S. dorsanarailway banks
- " leguminana ...among fir, & alder?
- " coniferana ...among Scotch fir
- " perlepidana, b. among grass, and low bushes
- " composana ...among clover, and trefoils

IMAGOS]

JUNE

- S. Weiranaamong beech
 " nitidana
 " Trauniana ...among maple
 " Germarana ...woods, in the South
 D. politana
 " sequanadry fields, and railway banks
 Petiverana ...among yarrow
 " plumbana ...
 " plumbagana ...
 " acuminatana railway banks
 " herbosana ...N. of England, and Scotland
 " simpliciana ... among Artemisia vulgaris
 P. Rheediana ...in hawthorn hedges
 C. albersana.....woods
 " ulicetanaamong furze
 " nimbanaamong beech
 " Juliana.....among oak
 " microgrammana among rest harrow
 " hypericana ...among Hypericum
 " canaamong thistles
 " fulvana.....chalky districts, among Centaurea scabiosa
 Hohenwartiana among thistles
 scopoliana ... among Centaurea nigra
 " expallidana ...dry banks
 conterminana
 T. mediananear London, Folkestone, Fulborne
 S. vibrana.....
 L. Servillana ...woods, in the S.
 E. nana.....among birch
 " maculosana ...woods, in the S.
 " sodalianaamong Rhamnus catharticus
 " hybridellana Witherslack
 manniана.....
 " curvistrigana woods, in the S., among ragwort?
 " udanamarshes, &c.
 " notulanafens, and marshes
 " rupicolana ...marshes
 subroseana .. woods, in the S.
 implicitana ...woods, in the S.
 ciliiana
 " pallidana.....cliffs
- X. Zoegana
 " hamanaamong thistles
 C. bifasciana ...woods, in the S.
 A. Beaumanniana ...in wet, rushy places
 " zephyrana ...S. coast
 Schreibersiana in fens
 badianarailway banks, &c.; among burdock
 " cnicanaamong thistles
 " maniana
 " axiniana
 " Mussehliana Devonshire
 maritimana, b. on the coast
 C. Francillonana on the coast
 dilucidana ...
 " Smeathmanniana
 " stramineana...chalky places
 alterna.....Folkestone
 T. pubicornella Howth, and Grassington, Yorks
 pseudo-bombycella oak woods
 P. villosellaNew Forest
 " opacellaNew Forest, Wither slack, Rannoch
 " calvela
 salicella.....
 " betulinia [heaths
 " pulrella..... among grass, on intermedia Black Park, Virginia Water
 " roboricolella ..
 crassiorella ...Hampstead, Highgate
 " reticellaSheerness, and near Gravesend. The ♀ when alive is banded with yellow like a larva of E. jacobaeæ, but turns nearly black soon after death
 P. Verhueliella
 D. marginepunctella
 X. melanella ...
 S. carpinetella ...among fir
 " arcuatella.....Cheshire, Rannoch
 " granellaabout granaries, and flour mills
 cloacella
 cochylidella...
 T. fulvimitrella Walsingham, Lancashire, Rannoch

IMAGOS]**JUNE**

- T.** *tapetzella* ...common in houses, &c., where its larva feeds on hair stuffing, carpets, fur, &c.
 " *albipunctella*
 " *misella*in outhouses
 " *pellionella* ...common in houses, its larva feeding on cloth, fur, &c.
 " *fuscipunctella*
 " *ganomella* ...woods, and hedges
 " *merdella*Darlington, Liver-
 pool, Manchester
 " *biseliella*in houses, and mu-
 seums, its larva feeding on hair,
 fur, and feathers
 " *semifulvella*...
 " *perochraceella* Rannoch
- L.** *quadripunctella* among roses
 " *luzella*berry]
 " *prælatella*among wild straw-
 rubiellain gardens
- I.** *tenuicornella* Witherslack, Man-
 chester, West Wickham
 " *Oehlmanniella*
 " *canariella*.....Isle of Man
- M.** *calthella*
 " *aruncella*dry banks
 " *seppella*on fl. of Veronica
 chamædrys, on dry banks
 " *mansuetella*...
 " *Allionella* ...among Vaccinium
 " *Thunbergella* ...
 " *subpurpurella* among oak
- N.** *Swammerdamella* on trees, among
 heath
 " *Schwarzella*, b. in hedges, &c.
 " *pilella*Yorks, Scotland,
 Lake District
 " *Metaxella*among alder, in fens,
 &c.
- A.** *fibulella*in Veronica fl.
 " *rufinotrella*....in wet meadows, and
 bogs
 " *sulzella*.....
 " *Degeerella*in, and near woods
 " *viridella*in hedges, and among
 oak
- N.** *scabiosellus*...among Scabiosa ar-
 vensis, and *S. columbaria*; very
 local
- N.** *cupriacella* ...
 " *Schiffmillerella* Southend, Da-
 renth
 " *minimella* ...Witherslack, Scot-
 land, Mickleham
S. *comptella*.....among sloe
 " *cesiella*among sloe
 " *griseocapitella* among birch
S. *lutarella*.....
A. *funerella*Richmond, Yorks ;
 Cambs, Lake District
 " *decemguttella* Darenth
P. *Curtisella*.....among ash
E. *Messingiella* in swamps, and damp
 bottoms
P. *porrectella* ...in gardens
 " *annulatella* ...Howth, Morecomb,
 Castle Eden, Scotland, Portland
E. *lobella*....among sloe
D. *assimilella* ...among broom
 " *conterminella*
 " *cnicella*
- G.** *cinerella*
- " *rufescenella*
 " *inornatella* ...in fens
 " *malvella*in gardens, about
 hollyhocks
 " *populella*
- " *nigra*.....
 " *lentiginosella*
 " *fumatella*New Brighton,
 Birkenhead, Dawlish
 " *ericetella*moors, and heaths
 " *mulinella*.....among furze
 " *divisella*
- " *sororculella* ...among sallow
 " *pelicella*.....Manchester, West
 Wickham
 " *longicornis* ...in bare, burnt places
 " *diffinella*sand-hills on the
 coast
 " *terrella*
- " *desertella*.....
 " *exploitella* ... Darlington, Skid-
 daw, Pentlands, &c.
 " *acuminatella*
 " *artemisiella* ... coast sand-hills,
 Manchester, &c.
 " *viscaricella* ...
 " *arundinetella* Hackney, Cambs

IMAGOS]

- G. mundellacoast sands
- " umbrosella ...coast sands
- " affinella
- " boreellaScotland
- " basaltinella ...Cambs, Addington
- " domesticella
- " proximellaamong birch, and alder ; on moors
- " notatella
- " vulgellahedges, &c.
- " luculellaamong oak
- " scriptella
- " fugitivella ...on trunks of elm, and beech
- " ethiopella ...on moss
- " distinctella ...on the coast, and in sandy places
- " tricolorella ... among *Stellaria* holostea
- " muscosella ...
- " fraternella ... among *Cerastium* arvense
- " leucomelanella
- " marmorella ...coast sand-hills
- " obsoletella ...Darlington, Redcar, S. Shields, Portland
- " ocellatella
- " atriplicella ...among *Atriplex*, and *Chenopodium*
- " sequacula
- " aleellaWest Wickham
- " leucatella
- " Mouffetella ...among honeysuckle
- " dodecerala
- " triparella
- " tenebrella
- " ligulellaamong *Lotus major*, on railway banks, &c.
- " vorticellarailway banks, &c.
- " sircomella ...railway banks, &c.
- " nigrinella
- " coronillella ...Mickleham
- " anthyllidella railway banks, and coast sand-hills
- " bifractella ...Folkestone, Mickleham
- " oblitellain fens
- " confinison old walls
- " cerealella.....in granaries
- " nigricostella .in fens

JUNE

- G. næviferella ... among *Chenopodium*
- " subdecurtella... among *Lythrum salicaria*, in fens
- " inopella
- " subocellella
- " Streliziella
- " intaminatella railway banks
- " Tarquinella
- " sangiellarailway banks
- " lathyrella among *Lathyrus palustris* ; in fens, &c.
- P. lappella
- " Metzneriella
- " carlinella
- S. parenthesella
- " humerella
- P. bicostella.....moors, &c.
- H. Geoffroyella
- " bracteella.....near Gateshead
- H. Christierella, e. Castle Eden, Darenth, Greenhithe, Seven-oaks
- D. sulphurella
- " oliviellaDarenth, Tenterden, Lewes, &c.
- C. minutella ...in hay lofts
- " flavimaculella among *Angelica sylvestris*
- " trisignella
- " stipella.....Preston, Staleybridge, Lake District, Yorks, Rannoch, &c.
- " augustella ...Hyde Park, Bristol
- " Woodiella ...formerly on Kersall Moor, near Manchester
- " grandella
- " lambdella.....Charlton, Bristol
- " subaquilella ...Scarboro', S. Shields, Lake District, &c.
- " tinctellaGravesend, Darenth, W. Wickham, &c.
- " subochreella Cambs, Lewes, &c.
- " flavifrontella Witherslack, Cambs, &c.
- B. grandipennella among furze
- " fusco-æneella
- " variella.....in sand-pits
- " chenopodiella Yorks, &c.
- " torquatella ...Scotland

IMAGOS]

- P. Lewenoekella
 " latreillella ...
 A. perlepidella...Darenth, Bristol, &c.
 R. Erxlebenella among lime under-
 wood
 G. fuscoviridella
 " Thrasonella...among rushes
 " cladiella among rushes, in
 fens, &c.
 " equitellaamong Sedum acre
 oculatella.....Tenterden, &c.
 E. dentella
 T. stanellaamong oak
 " resplendella...
 A. ephippella ...local
 " nitidella .. among hawthorn
 " albitriella ...
 " conjugellaamong wild moun-
 tain ash
 " serariellapossibly a var. of
 A. conjugella
 " mendicella ...among sloe
 " glaucinella ...among oak
 " retinellaamong birch
 " abdominella. e.
 " dilectellaamong juniper
 " curvellaamong wild apple
 " sorbiella
 " pygmæella ...among sallow
 " Goedartella ... among alder, and
 birch
 " literella.....var. of Goedartella,
 at Darenth
 " Brochella..... among birch, and
 alder
 " arceuthinella among fir, & juniper
 C. farinatella ...among Scotch fir
 G. alchimiella ...
 " elongellaamong alder, & yew
 " syringella..... in gardens, among
 lilac
 " ononiellaKent
 " auroguttella... among Hypericum
 quadrangulum
 " Hoffmanniella
 O. avellanella ...among nut
 " betulævarella among birch
 " scutulatella ...
 " torquilella ...among sloe
 " Scoticella.....

JUNE

- O. Loganella ...
 " guttellaamong apple
 C. Fabriciella ...on railway banks
 " paripennella
 " Wockeella, e.
 " lixella, e.
 " conspicuella...
 " pyrrhulipennella
 " albicostella ...among furze
 " vulnerariella
 " anatipennella
 " palliatella.....
 " libipennella, e.
 " curricipennella among sallow
 " niveicostella, e.
 " discordella ...among Lotus major
 " genistaecolella, e. among Genista
 anglica
 " therinella.....among thistles; very
 local
 " troglodytella
 " lineolellaon Ballota nigra
 " murinipennella
 " cæspitiella...among rushes
 " salinellaYorks, and near
 Brighton
 " laricella, e.among larch
 " albitarsella ...among ground ivy
 " fuscocuprella among nut
 " nigricellaamong hawthorn
 " orbitella
 " gryphipennella among rose
 " siccifoliella ...
 " vitisellaStaleybridge; and
 moors near Manchester
 " viminetella ...among sallow
 " olivaceella ...Chesterfield
 " solitariella ... among Stellaria
 holostea
 " lutipennella...among oak
 " badiipennella among hawthorn
 " limosipennella
 " chalcogrammella among Cerastium
 arvense
 " Wilkinsonella
 " Lienigella ...in fens, among reed
 B. pinicolella ...among Scotch fir
 L. paludicolella among willow herb
 " lacteellaYorks, Lake
 District, Bristol

IMAGOS]

- L. miscella, b. ...
 " conturbatella among willow herb
 " Raschkiella ...
 " ochraceella, e.
 " subbistrigella
 " atrellaamong hawthorn
 C. bimaculella, e. Black Park, and
 Leith Hill
 " Schrankella...
 " flavicapitella among hawthorn
 A. eratella
 " terminella ...
 C. festaliella.....
 A. Treitschkiella about dogwood
 S. Brunnichella in chalk pits, among
 Clinopodium vulgare
 E. Gleichenella most of the genus
 are found among grass, sedges,
 and rushes
 " apicinpunctella
 " albifrontella...
 " Holdenella ...
 " atricomella ...
 " luticomella ...
 " kilmunella ...
 " cinereopunctella
 " trapeziella ...
 " stabilella
 " Gregsonella ...
 " nigrella
 " perplexella ...
 " humiliella ...
 " subobscurella
 " zonariella.....
 " gangabella ...
 " tenuiatella.....
 " cingilella
 " obliquella... ..
 " Megerella ...
 " adscitella
 " cerussella..... among reeds, in
 marshes, &c.
 " rhyncosporella
 " eleochariella
 " biatomella ...
 " serricornella
 " triatomella .. in chalk pits
 " dispunctella...
 " collitella
 " pollinariella...

JUNE

- E. subochreella
 " cygnipennella
 T. complanella...among oak
 " emyellaamong blackberry
 " angusticolella
 " dodonea
 L. roborellaamong oak
 " amyotella.....
 " quinqueguttella among dwarf
 " sallows
 " iradiella
 " insignitella ...Castle Eden, Scar-
 boro', Windermere
 " lautella.....among oak
 " vacciniella ...
 " cavella
 " pomifoliella... among hawthorn,
 and apple
 " coryellaamong nut
 " spinicolella ...among sloe
 " faginellaamong beech
 " carpinicolella among hornbeam;
 local
 " ulmifoliella ...among birch, &c.
 " spinolella.....among sallows
 " quercifoliella among oak
 " viminiella ...among sallow
 " scopariella ...among broom
 " ulicolella, e. among furze
 " Heegeriella...among oak
 " tenella Epping, Winder-
 mere, Wanstead
 " sylvella.....among maple
 " emberizepennella
 " Frolichiella ...among alder
 " Dunningella Yorks, Lake
 District, &c.
 " Nicelliella ...among nut
 " Stettinella ...among alder
 " Klemannella
 " tristrigella ...among elm
 L. Clerckella ...
 P. salignella, e.
 C. spartifoliella among broom
 " laburnella ...among laburnum
 " scitella
 " Wailesella ...among Genista
 " lotellaamong Lotus major
 O. salaciella.....among sorrel
 " auritellain fens

IMAGOS]

- O. crepusculella*
- B. aurimaculella* among chrysanthemum leucanthemum
- " *cidiariella*among alder
- " *ulmella*.....among oak
- " *cratægifoliella* about hawthorn hedges
- " *demaryella* ...Scarboro'
- " *Boyerella*.... among elm
- " *frangulella* ...among buckthorn
- " *hippocastanella*
- " *cristatella*.....among yarrow
- " *artemisiella* ...at Folkestone
- N. atricapitella* among oak
- " *anomalella* ...
- " *perpygmælla*
- " *pomella*
- " *oxyacanthella*
- " *viscerella*
- " *catharticella*
- " *septembrella* among *Hypericum*
- " *cryptella*
- " *Weaverella* ...
- " *intimella*
- " Headleyella Mickleham, Scarboro'
- " *subbimaculella* among oak
- " *apicella* on moors
- " *argyropezella*
- " *quinquella* ...

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- N. sericopezella*
- " *argentipedella*
- " *angulifasciella*
- " *arcuosella* ...
- " *alnetella*among alder
- " *continuella* ...
- " *regiella*.....
- " *sorbiella*
- " *tiliælla*
- T. pulverosella*.. among wild apple
- P. Bertrami*, e. among yarrow
- " *ochroodactylus* among tansy
- " *trigonodactylus* comes to l.
- Zetterstedtii*...
- " *acanthodactylus*
- " *baliiodactylus*
- " *aridius*
- " *parvidactylus*
- " *serotinus*
- " *plagiодactylus* among *Scabiosa columbaria*
- " *Hodgkinsonii*, b.
- " *microdactylus* among *Eupatorium cannabinum*
- " *paladum*in fens
- " *tetradactylus*
- " *pentadactylus*
- A. polydactyla*, from Aug.

JULY

OVA]

Now that the heat of summer is really making itself felt, a slumbrous calm seems to hang over the landscape, "half drowned in sleepy peace,"

"As satiate with the boundless play
Of sunshine on its green array."

And the Collector, yielding to the soothing influences around him, may perhaps be seen

"beneath an ancient shade,
Or on the matted grass supinely laid."

But he should remember that he must work, often very hard, to obtain what he may be specially in search of, and that very few, if any, prizes will come to his hand unless they are thoughtfully sought for.

This may be a convenient time to note that the pursuit of Entomology is liable to be attended with some inconvenience, and, it may be, risk, which, however, may be minimized by a little pre-consideration. Marshes, and other disagreeable places, although "farthest from them is best," have occasionally to be visited, and the Collector would do well to be as expeditious as possible over his work in these localities, and he should be careful to keep as much as possible to the "windward" of the rotten carcasses, and worst spots he may think it desirable to explore, for the treasures to be found at them. When heated, he should be especially careful how he allows himself to "cool down," and not be tempted to sit, or lie down in damp or miasmatic places, because the shade may be grateful, as cold, fever, rheumatism, or worse, may result. In very hot weather drink of any kind should not be too freely indulged in, as its tendency is to unduly promote perspiration. If the journey on foot is a long one, or the time out in the blazing-sun is prolonged, an occasional small "drink" of some acidulated preparation, in which is a "touch" of brandy or whiskey, with the partaking of solid food at short intervals, will prevent that exhaustion which sometimes culminates in sunstroke. Completeness of pre-arrangement in these cases, generally means efficiency of work, besides the absence of bad after-results. Midges, flies, &c., are often a source of annoyance on a hot day, particularly if the Collector is corpulent, and perspires freely. Stings may, however, be generally avoided by anointing the face, head, and hands with fluid camphor, or some other strong-smelling insect bane. Washing the head, &c., just before starting in a strong solution of borax, or of alum, both said to be particularly distasteful to insects, might be tried with advantage. Alcoholic emanations are great attractions to most insects, and therefore teetotalers are least liable to annoyance from this source. The Author remembers once collecting with a young wine and spirit merchant, who had hastily left his cellar for "a day out," and the attention which was paid him by hundreds of flying "cusses" was, to use another Americanism, "a caution." Adders may be often met with, but they never bite unless attacked, or accidentally trodden upon, and they are generally too

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much on the alert to be thus caught napping. They are much more alarmed at the presence of man than he ought to be of them, though a suddenly disturbed female will sometimes face him, and hold herself ready for attack, when she is burdened with a troop of young ones, clinging round her. High boots, or leggings, are a good protection against any such risk. Good lace-up boots are much to be preferred, for tramping about, to the effeminate, though it may be convenient, "elastics." It might be desirable to be provided with a small bottle of liquid ammonia, in case either of a bite, or a severe insect sting. Prompt application is essential to success. There is yet another risk sometimes incurred by the ardent Entomologist: a bull, or a cow may give chase, and, with dreadful declension of horns, threaten a most unwelcome "heave offering" over the hedge. Such an attack should be promptly met by the sudden opening of an umbrella in the face of your enemy, or the flinging about of your net, with a "jobbing" of the ferrule at his or her nose—a most sensitive part, and conqueringly seized upon by dogs at bull-fights. If these movements be accompanied by an unearthly noise, on your part, the chances of your tormentor's rapid retreat are increased.

- C. Edusa, s..... on white clover, lucerne, &c.
- A. Paphia, e.... on dog, and sweet violet, and dead leaves, and moss near ; in woods ; whitish
- M. Athaliaon *Plantago lanceolata*, and *P. major* ; also fox-glove, germander, and *Teucrium scorodonia*
- V. urticæ on nettle; in batches, on underside of leaf ; barrel-shaped, fluted, green
- L. sibyllaon honeysuckle
- A. Irison sallow; on upper-side of leaves
- A. Galateaamong timothy, and other grass ; laid loosely ; globular, cream-coloured
- S. Semeleon quaking grass, &c.
- " Ianiraon meadow grasses ; slightly oblong, imbricated
- " Tithonuson blades of grass ; truncato-conical ; at first canary yellow, changing to brown
- " hyperanthus...on annual meadow, millet, couch, and other grasses; singly
- T. querqusto April, on oak twigs, high up
- " w-album to April, on wych elm, also elm ; on the twigs ; whitish
- T. prunito March, on sloe twigs
- L. Ægon, e.....to March, on *Ornithopus perpusillus*; white
- H. sylvanuson grasses ; a little within the sheath ; white, laid in a line
- " linea to March, on grasses
- S. bembeciformis on poplar, sallow ; upon the bark ; oblong, dark brown
- M. arundinis ...on stems of common reed ; singly
- Z. aesculion elm, pear, and other trees ; in masses, in the chinks of the bark
- C. ligniperda ...in the chinks of the bark, of various trees, especially ash, willow, and elm
- H. sylinus, e....among sorrel, and dock ; laid while the moth is on the wing ; at first white, but soon turn black
- C. miniatæ, e.on lichens, on oaks ; laid in rows ; yellow
- E. cribrumon heath ; globular, shining metallic bronze
- C. villicaon chickweed, furze, &c. ; laid in regular batches, upon the leaves ; pearly, pale straw-colour

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- L. chrysorrhæa on sloe, and hawthorn. The eggs of the *Liپaris* are laid in batches, round the twigs, and are covered with down from the parent moth
 " aurifluaon sloe, hawthorn, oak, &c.
 " salicison willow, poplar, &c. The satiny-like batches are very peculiar
 " disparto March, on sloe, hawthorn, and various fruit-trees
- O. gonostigma on oak, nut, sallow, bramble
 " antiqua.....on the old cocoon, which has been spun on various trees, and shrubs, palings, &c.; hollowed somewhat in the form of a cup
- B. neustriato March, on hawthorn, sloe, fruit-trees ; in batches round twigs, and branches
 " castrensis.....to March, on *Artemisia maritima*, and *Daucus maritimus*
- O. potatoria.....on blades of coarse grass; white, with two rings of green
- E. vespertaria ...to April, on nut
- B. repandata ... on birch, plum, bramble, &c. The eggs of the tree - feeding species of this genus are deposited in the chinks of the bark
 " rhomboidaria ...on ivy, birch, oak, plum, lilac, rose, elder, &c.
 " perfumaria ...on ivy, lilac, clematis, &c.
 " abietariaon larch, and spruce
 " cinctariaon heath. In confinement eggs have been laid, by preference, on sallow catkins
 " roborariaon oak ; in clusters; oblong, oval ; at first dull greenish, then reddish brown
 " consortaria ... on oak ; bright green
- G. obscurata.....on thyme, sun cistus, *Potentilla reptans*, *Poteriam sanguisorba*
 D. obfuscataon heath, vetch, &c.
 P. baiulariaon oak ; large, oval, brownish
 H. thymaria .. on hawthorn, oak ; rather large, oblong-oval, and flattened ; a peculiar shining greenish-bronze colour
- A. Blomeraria ...on wytch elm ; in small batches ; somewhat brick shaped ; at first pale, afterwards deep yellow, at last again pale
- A. scutulataon dandelion
 " bisetataon dandelion
 " rusticataon hawthorn
 " holosericata ...on sun cistus
 " incanaria.....on dandelion, groundsel, &c.
 " ornataon thyme and marjoram
 " straminata ...—? (Larva will eat knotgrass.) Rather large, oblong-square, with the corners rounded; reddish-brown; seem to be deposited loosely
 " subsericeata...on *Rosa spinosissima*?
 " fumataon heath
 " strigilataon clematis, and *Stachys*
 " emutariaon *Triticum repens*? Oblong, clear salmon colour
 " aversataon primrose, &c.
 " emarginata ...on *convolvulus*, *Galium*, &c.
- T. amatariaon dock, &c.
 F. pinetariato Mar., on bilberry
 conspicuata ...on broom
 M. euphorbiata on *Euphorbia cyparissias*
- A. strigillaria ...on heath
 L. cœsiata.....on whortleberry, bilberry, and heath
 E. sobrinataon juniper
 Y. elutata.....on nut, sallow, alder, bilberry, &c.
 M. rubiginata ...to April, on alder ; large

OVA]

JULY

- M. procellata, e. on *Clematis vitalba*
" *montanata* ...on primrose
A. *rubidata*, b...on *Galium*
C. *fluviata*.....on *Polygonum persicaria*; oblong flattish, yellow,
afterwards changing to brown
P. *lignata*.....on *Galium palustre*, &c.
" *vitalbata*on *Clematis vitalba*
S. *vetulata* ... to Mar., on buckthorn
C. *picata*, e. ...on chickweed; singly,
on the leaves and stems ; large
" *sagittata*on *Thalictrum flavum*, growing in fens
" *immanata*, e. to March, probably
on alder, and other trees, and
strawberry, bilberry, &c.
" *prunata*to April, on currant,
gooseberry, sloe, &c., on the
bark ; large
" *populata*to April, on bil-
berry, whortleberry, poplar ;
globular, large, yellow
" *fulvata*to April, on dog
rose ; rose pink, large
E. *palumbaria* ...on twigs of broom
C. *imbutata*on cranberry ; rather
large, oblong-oval, at first pale
yellow, afterwards orange
T. *chærophyllata* to Feb., on *Anthriscus sylvestris*, and *Bunium flexuosum*
C. *curlula*on poplars, sallow
N. *cucullina*on maple ; after the
10th to the e. of the month ; on
underside of leaves, in shady
places in woods ; generally
singly, but s. in twos, and rarely
in threes ; circular, smooth,
white, s. opalescent
" *dictæa*on poplars, sallow,
willow ; laid sparsely, on the
leaves
" *dictæoides* ...on birch
A. *aceris*on sycamore, horse
chestnut, maple, birch, and s. oak
L. *litoralis*on *Ammophila arundinacea*
" *impura*on *Dactylis glomerata*
" *phragmitidis* on the common reed;
upon the stems
- N. *lutosa*on the common reed;
upon the stems
L. *exigua*on plantain
C. *exulis*on various species of
Poa ; upon the stems
M. *persicariae* ...on *Polygonum persicaria*, and other low plants
A. *gemina*.....on grass culms
M. *nigricans*....on clover, plantain,
" *porphyrea* ...on heath [&c.
C. *Morpheus* ...on dock, teazle, &c.
T. *Orbona*on broom, & various
plants
" *pronuba*on stalks of grass,
and ears of corn
N. *augur*on low plants, haw-
thorn, sallow, &c.
" *festiva*on violet, foxglove,
sallow, &c.
" *confusa*.....on *Silene acaulis*,
and other low plants
T. *subtusa*, e. ...to Mar., on poplar,
upon the twigs ; hatch in the
spring
D. *carpophaga*...on *Silene inflata*, and
Lychnis ; upon the fl.
H. *adusta* on hawthorn, sallow ;
upon the leaves, and twigs
C. *umbratica* ...on sowthistle, let-
tuce ; upon the leaves
P. *v-aureum* ... on nettle, &c.; singly
A. *pyramidea* ...on oak, birch, elm,
willow ; in crevices, upon the
bark ; small
M. *typica*on dock, low plants,
&c. ; in clusters, upon the leaves
H. *proboscidalis* to March, on nettle ;
rather large, globular (slightly
oval) indented on upper side ;
pale yellow
C. *margaritellus* probably among
damp grass, in open woods ;
" greenish-yellow, oblong, and
slightly oval, rounded at each
end, one end slightly smaller ;
surface shining, covered with
slight oval depressions placed
side by side—not end to end—
and arranged in wavy longitudi-
nal lines."

LARVÆ]

JULY

Some few of the larvæ to be found this month occur in the list with the "h" annexed, signifying that they hibernate. These are, of course, now extremely small, and at this busy period of the year, unless required for purposes of observation, will be passed over by the Collector, until they reappear in the spring, in a state approaching maturity, especially as it is generally found to be a "ticklish job" to imitate the natural conditions sufficiently to preserve small larvæ alive through the winter.

During hot summers, and not unfrequently in confinement, especially with a little forcing, "double broods," or second appearances, of an insect not ordinarily appearing twice in a year, will come upon us. Sometimes only a portion of a brood feeds up rapidly, and the second imago emerges before the winter. *S. ocellatus*, and *S. populi* are pretty regularly double-brooded in the South and West of England, in confinement, without forcing, though we believe a second brood of *S. ocellatus* has never been seen at large. If the summer be hot, a second brood of *S. populi* not unfrequently occurs, and then the larvæ appear this month.

- P. Machaon ... *Peucedanum palustre*, and other Umbelliferæ ; in fens
- A. cardamines ... *Cardamine*, *Erysimum*, &c. ; on the seeds
- G. rhamni, b. ... buckthorn
- C. Edusa Dutch clover, lucerne, &c.
- Hyale clover, melilot
- A. Euphrosyne, h. dog, and sweet violet
- M. Selene, h. ... dog, and sweet violet
- M. Cinxia, h. ... *Plantago lanceolata*
- V. Antiopa.....willow, birch, poplar, nettle
- " Io nettle, feeding exposed, generally gregarious
- " Atalanta nettle ; feeding concealed in curled-up leaves
- " cardui thistles ; under a web, from 3 to 6 or so, on a plant. Will also eat nettle
- S. Ægeria, b. 2...grasses
- Megæra, b. 2 grasses
- C. Pamphilus, 2 grasses
- T. rubi, b. bramble ; buds, and fl. ; also broom, *Genista*, birch, *Salix fusca*, and bilberry
- " betuleæ sloe, birch ; generally stunted bushes
- L. boëtica.....*Collutea arborescens*
- " agestis, 2 ... *Erodium circutarium*
- " Adonis, e. 2... *Hippocrepis comosa*, &c.
- L. Alsus *Anthyllis vulneraria*, in the fl-heads, or legumes ; full grown about the m. of the month, but do not change to pupæ till after the winter
- " Arion, h. ? ... thyme ; in the fl., or among the seeds when young ; is supposed to hibernate
- N. Lucina.....primrose, and cow-slip ; eats small holes in the leaves
- T. Tages *Lotus corniculatus*
- H. sylvanus grasses ; in rolled-up blades
- " comma, b. ... trefoil, and other Leguminosæ ; in rolled-up leaves
- S. convolvuli ... small convolvulus, balsam, &c. ; hides under sods
- D. lineata.....*Galium*, vine, &c.
- M. fuciformis ... *Lychnis*, *Scabiosa*, *Galium*, honeysuckle, &c.
- " bombyliformis *Scabiosa*
- S. ichneumoniformis in r. of *Lotus corniculatus*
- " muscæformis in stems of *Statice armeria*. The larva is found from this month to Sept., and is supposed to be 2 yrs. feeding up
- H. sylvinus at r. of sorrel, and dock ; 2 years feeding
- Z. nubigena, h. thyme
- " meliloti, e. h. *Lotus corniculatus*, vetches, &c. ; partial to chalky soils

LARVÆ]

- Z. trifolii, h.....trefoil, vetch
" lonicera, h...clover, grasses
" filipendulae h. *Lotus corniculatus*,
&c.
L. molybdeola, h. lichens
D. pulchella.....field forget-me-not
L. monacha, b. oak, beech, apple,
birch, fir, &c.; hides in the
crevices of the bark
O. antiquavarious trees, and
plants
D. corylibeech, nut, birch,
alder, oak, willow
E. lanestrishawthorn, sloe, &c.;
in large nests of silk
B. neustriasloe, hawthorn, fruit-
trees, &c.; gregarious, in a web,
until nearly full-fed
" castrensis, b.... *Artemisia mari-*
tima, and *Daucus maritimus*.
Feed in the sunshine. Will
also eat knotgrass, chrysanthemum,
wild cherry, and various
trees, if sprinkled with salt water
E. versicolora ...birch
P. syringaria, h. lilac, privet, elder,
honeysuckle; s. feed up this
month, and a second brood
appears in August
E. alniariaalder, birch, sallow,
beech, &c.
" tiliariaoak, sallow, birch,
alder
" fuscantaria, b. ash, privet; eats
round holes in the leaves
" angularia ... oak, birch, beech, &c.
B. hirtaria.....lime, elm, ash, and
fruit trees
A. prodromaria oak, birch, elm, nut
T. consonaria ...beech, oak, birch
B. fuliginaria ...fungi; on timber
P. baiularia, h....oak. Covers itself
with fragments of leaves, &c.,
after every moult
E. omicronaria, e. maple; s. beech
" punctariaoak
" pendularia ...birch
A. trigeminata h. ____? probably
some low plant; will eat knot-
grass

JULY

- A. ornata, s., h. thyme, marjoram;
will also eat mint
" promutata ... yarrow, mugwort,
creeping cinquefoil
" straminata, h. ____?
" mancuniata ...____? will eat knot-
grass
" subsericeata...____? will eat knot-
grass
" emutaria, h....*Triticum repens*;
will also eat M. lupulina, L.
corniculatus, *Chenopodium*,
mint, and knotgrass
" emarginata ...*convolvulus*, *Galium*
C. pusaria.....oak, nut, alder,
birch, sallow
C. temeratasloe, wild cherry,
buckthorn?
" taminatawild cherry, sallow,
buckthorn?
A. pictaria (?) ...stunted, and un-
healthy-looking sloe bushes
N. pulveraria ...sallow, nut, privet
F. carbonaria ...sallow, birch
" atomaria*Centaurea*, trefoils,
&c.
A. citraria.....wild carrot, trefoil,
&c., near the coast
H. aurantiaria ...hawthorn, birch, oak
E. decolorata, b. to m. seed-capsules
of *Lychnis dioica*
E. venosatain seed-capsules of
Silene inflata, and *Lychnis*
dioica
" pulchellata ...in foxglove fl.
" valerianata ...*Valerian officinalis*,
fl.
" plumbeolata *Melampyrum pra-*
tense, fl.
" isogrammata *clematis*, fl.-buds
" pygmæata, m. *Stellaria holostea*,
fl. Will also eat *Cerastium*
tomentosum, fl.
" lariceatalarch, and spruce
" pusillataspruce
" indigatajuniper, and Scotch
fir; will eat cypress, in confine-
ment
" vulgata.....hawthorn, willow,
golden rod, ragwort, &c.

LARVÆ]

- E. dodoneata ...oak
" abbreviata ...oak
" coronatafl. of clematis, wormwood, bramble, Eupatorium cannabinum, golden rod, wild angelica, &c.
L. viretataprivet, and *Actaea* spicata ; when young, on the unripe berries
T. variataScotch fir, larch
M. ocellataGalium
M. unangulata ...chickweed
" galilataGalium sexatyle
C. munitata, h. groundsel
" ferrugataground ivy, Galium, chickweed
S. certata, b. ...barberry ; between united leaves
C. psittacataoak, lime, apple, rose ; probably also birch, hawthorn, sallow
" russata, 2. ...strawberry, birch, hawthorn, sallow, &c.
" immanata.....strawberry, bilberry, birch, alder, &c.
" silaceaEpilobium, and *Circea lutetiana*, &c.
E. cervinaria ...mallow, hollyhock
A. plagiataHypericum perforatum, fl.
L. griseata*Sisymbrium Sophia* (seed pods) ; on the coast ; will also eat *Erysimum cheiranthoides*
C. obliquaria ...broom
D. falculabirch ; also oak, alder, willow, poplar
" unguicula....beech ; generally on the stunted bushes
C. spinula, 2. hawthorn, sloe, mountain ash
D. furculasallow, willow, poplar
" bifidapoplars
" vinulawillows, poplars, sallow ; by preference the Lombardy poplar
P. bucephalaelm, oak, lime, sallow, beech, nut, &c.
C. anachoreata, b. poplars, sallows

JULY

- C. reclusa, b. between united leaves of sallows, aspen, willow
P. palpina.....willows, sallows, poplars, birch
N. camelinaoak, beech, birch, maple, nut, alder, apple, sallow, aspen, hawthorn
" cucullina, e....maple, sycamore
" carnellitabirch
" dictæoides ...birch
" dromedarius birch, alder, nut
" tritophusbirch, poplars
" Chaoniaoak
" Dodoneaoak, and birch
C. orpoplars ; between the leaves
" ocularispoplars
" flavicornis ...birch ; in rolled-up leaves
" ridensoak ; between united leaves
D. Orionbirch, oak ; birch is recommended in feeding, as an alternative diet
A. megacephala poplar
" strigosa.....hawthorn ; chiefly in Cheshire, and in chalky districts
" alnihawthorn, alder, willow, oak, lime, rose, elm, nut, beech, Spanish chestnut, horse chestnut, sycamore, poplar, sallow, bramble. Has been found, at rest, on palings, &c.
" rumicisbramble, plantain, knotgrass, and other low plants
" auricomabramble, birch, oak, bilberry
" menyanthidis *Menyanthes trifoliata*, heath, sallow, bramble, *Myrica gale*
L. Comma*Dactylis glomerata*, and other grass, also sorrel
N. typhae, e. ...in stem of *Typha latifolia*
G. flavago.....inside thistles, *Lappa*, elder, foxglove, &c. ; feeding on the pith
H. petasitisin r. and stems of butter burr, and burdock

LARVAE]

JULY

- H. micaceaat the base of leaves of Carex, and inside stems, and r. of Equisetum arvense, and E. fluviatile, and dock
- X. conspicillaris Lotus corniculatus, and other low plants
- N. saponaria ...Silene, Lychnis, and other low plants
- M. albicolon.....Atriplex, and Chenopodium, on coast-sands, &c. ; also lettuce, &c., in gardens
- " brassicæcabbage, dock, Chenopodium, chrysanthemum, &c. [atum
- C. Haworthii ... Eriphorum vaginatum
- H. palustrisplantain, and other low plants
- A. suffusar. of spinach, lettuce, radish, &c.
- " sauciaplantain, dock, and other low plants
- " segetum, h.in r. of turnips, &c.
- corticea, h.Chenopodium
- " cursoriaEuphorbia esula, sandwort, sea violet, &c.
- " triticir. of sandwort, sea violet, and other low plants
- " præcox.....sandwort, sea violet, chickweed, and other low plants ; on the coast ; also dwarf willows
- N. plectaGalium verum, Asperula odorata
- " festiva, h.violet, sallow, fox-glove, &c.
- " rubilow plants
- T. piniperda.....Scotch, and other firs ; resembles the "needles," on which it feeds
- T. gothicasallow, hawthorn, oak, &c. ; also dock, nettle, laurel, broom, lilac, &c.
- " leucographa plantain
- " rubricosadock
- " instabilissloe, sallow, willow, oak, dock, and other low plants
- " stabilioak, elm, hawthorn, &c.
- " graciliswillow, sallow, low plants
- T. crudaoak, nut ; also other caterpillars
- A. liturameadow sweet, and other low plants ; also oak, willow, alder
- C. vacciniielm, oak, sallow, willow, and low plants
- D. rubiginea.....apple, dandelion, and other low plants
- C. xerampelina ash
- D. carpophaga...Lychnis, and Silene inflata, seeds
- " capsincola ...Lychnis, and Silene, seeds
- " cucubaliLychnis, Silene inflata, and Cucubalus bacciferus, seeds
- " albinacula ..Silene nutans, seeds ; and s. S. inflata ; in dry and hilly woods. When young, conceals itself in the seed-capsule, and afterwards at the root, crawling up, after sunset, to feed on the unripe seeds. In confinement will also eat seeds of Silene maritima, and Lychnis dioica
- " conspersa.....Lychnis flos-cuculi, and Silene inflata, seeds
- " compta.....garden pinks, and other Caryophyllæ, seeds
- " cæsiaSilene maritima, S. inflata
- H. dysosæa ... fl., and seed-heads of Sonchus, and Lactuca, (lettuce, garden and wild)
- " serenafl. of sow thistle, hawkweed, wild lettuce, &c.
- P. xanthomista...violet, harebell, &c., at night
- " flavocincta ...chickweed, groundsel, mint, everlasting pea, &c., plum, &c.
- D. templiin stem, and r. of Heracleum sphondylium
- E. lichenea, s. ...from Nov., ragwort, and various low plants, on the coast
- A. Aprilinaoak ; hides in the bark crevices

LARVÆ]

JULY

- M. oxyacanthæ hawthorn, sloe
H. adusta, h. ...hawthorn, and sal-
low, when young; afterwards,
low plants
" glaucasallow, birch, bil-
berry, heath; will eat lettuce,
in confinement
" peregrina.....Chenopodium, and
Salsola kali
" chenopodii ...Chenopodium
" suasa.....plantain, lettuce,
knotgrass, &c.
" thalassina.....honeysuckle, sallow,
broom, knotgrass, &c.
" genistabroom, chickweed,
Silene, knotgrass, &c.
X. lithorizahoneysuckle
C. persicillaris Hypericum
C. exoleta.....scabious, campion,
rest harrow, Eryngium mariti-
mum, dock, turnip, asparagus,
&c.
X. rhizolitha ...oak
" semibrunnea willow, ash
" petrifataoak, lime, birch
C. verbascimullein, figwort
scrophulariæ figworts, mullein
" lychnitisseeds of white, and
black mullein
" gnaphaliigolden rod
" umbratica.....Sonchus, lettuce,
&c.; hides by day under leaves,
near the ground; feeds on the
upper leaves, and fl. at night;
very variable
H. marginata, e. rest harrow, pre-
ferring the fl.; also Arenaria,
and Hyoscamus; knotgrass, in
confinement
" peltigerarest harrow, Hyos-
camus niger, marigold, and
several coast plants
" armigerawild mignonette,
preferring the fl.
" scutosa.....Artemisia campe-
tris
A. myrtilliheath
H. arbutiCerastium arvense,
forget-me-not, &c.
A. sulphuralis ...small convolvulus
- A. luctuosasmall convolvulus;
feeds by night
H. uncasedge (*Carex*)
B. parthenias ...birch; s. oak, and
beech
P. orichalcea ...Eupatorium canna-
binum
" chrysitis, h....thistle, *Lappa*, net-
tle, dead nettle, &c.
" festucæ.....reeds, sedges, and
grasses; near the sea
" gamma..... nettle, hop, and
most low plants
G. libatrixwillow, sallow,
poplar
C. fraxiniash, poplars
" nupta*Salix fragilis*, poplar,
&c.; often found hiding in the
crevices of the bark, or under
detached pieces
O. lunaris.....oak
H. proboscidalis, h.: nettle
" crassalisheath
H. costæstrigalis thyme
P. punicealis ...*Origanum vulgare*,
between the leaves
" purpuralis ...*Mentha arvensis*,
between united leaves
" ostrinalis.....var. of P. purpuralis?
R. sanguinalisthyme, fl.
E. cingulalis.....*Salvia pratensis*,
under the leaves
A. niveus, b. ...in a case, under the
leaves of *Potamogeton*
B. lupulinialisin stems of hop
" terrealis, h. ...golden rod, fl., &c.
" asinalis, e. ...madder, fl., and
young seeds
P. forficaliscabbage, horse-
radish, &c.
S. sticticalis*Artemisia*
S. lineolalis, b. the lichens on sloe,
Parmelia parietana, and P.
olivacea
" coarctalismoss
N. genistella, b. furze; also *Genista*
Corsica, Isle of Wight, and
New Forest
P. adelphellapoplar, willow
R. formosellaelm, birch

LARVÆ]**JULY**

- H. prasinana ...oak, &c.
 A. prodromana *Potentilla anserina*,
 and most low plants
 P. sponsanabeech, elm
 " mixtanaheath
 " Caledoniana *Myrica gale*
 " cristanadwarf sallows, and
 hawthorn; between united leaves
 " hastianadwarf sallows
 " aspersana.....*Potentilla*, and
 meadow sweet
 " Shepherdana hemp agrimony,
 meadow sweet; in the tops
 " comariana (?) strawberry
 P. marginana ...teazle, and probably
 seed-heads of Compositæ
 S. euphorbiana...*Euphorbia paralis*,
 heads
 M. consequana...*Euphorbia paralis*
 P. rugosana*Bryonia dioica*
 B. uliginosana ...*Lythrum salicaria* ;
 in fens
 P. myrtillana ...*Vaccinium*
 G. nævanaholly
 P. immundana.. in leaves of birch,
 and alder
 E. nigricana.....in pea pods
 " pisanain pea pods, and
 vetches
 S. dorsana in pods of *Vicia*
 lutea, and *Orobus*
 " perlepida...in *Orobus* pods
 C. canathistle heads
 " conterminana lettuce, fl., and
 other Composite
 T. mediana.....seeds of Umbelliferæ
 E. curvistrigana fl. of *Lactuca muralis*
 " ciliataseeds of cowslip
 " anthemidana *Erigeron acre*, fl.
 A. cnicanathistle stems
 T. hyemana? ...oak
 E. gelatellabetween sallow, or
 hawthorn leaves
 P. radiellain a case, on grass
 T. fuscipunctella on all kinds of waste
 substances
 N. scabiosellus, h. in seed-heads of
 Scabiosa arvensis; in the
 autumn in its case, on various
 low plants
- N. cupriacella, h. in seed-heads of
 teazle, and *Scabiosa succisa*
 S. pyrellahawthorn, apple,
 pear, &c.
 Y. virginipunctella *Sedum telephium*
 C. pyraustella ...on *Thalictrum aqui-*
 legifolium, on the Continent
 Y. sylvella, b. ...oak
 D. costosella ...furze, and broom, fl.
 " pallorella.....in leaves of *Centau-*
 rea scabiosa
 " umbellella ...furze
 " conterminella shoots of sallow
 " ocellellasallow
 " ciliellamost Umbelliferæ,
 and Angelica
 " emeritella ...in tansy leaves
 " pulcherimella *Bunium flexuosum*,
 fl.
 " chærophyllicorella *Chærophylum*
 " nervosella ...parsnip, & *Cænanthe*
 crocata
 " olerella, b. ...*Achillea millefolium*
 G. hippophaella *Hippophae rham-*
 noides, between the terminal
 leaves
 " cuneatella ...willows
 " longicornis? *Erica cinerea*
 " acuminatella in thistle leaves
 " costella*Solanum dulcamara*
 " obsoletella ..in stems of *Cheno-*
 podium
 " atriplicella ...*Atriplex*, and *Che-*
 nopodium
 " solutella ?....*Genista pilosa*
 " paupella*Inula dysenterica*,
 in fl.-heads
 " inopella*Inula dysenterica*, in
 fl.-heads
 A. granitella.....*Inula dysenterica*
 " autumnitella *Solanum dulcamara*
 R. Erxlebenella *Tilia*
 G. Fischeriella ...in seeds of *Dactylis*
 glomerata, and other grasses
 C. dentellaseeds of *Chærophyl-*
 lum, and *Angelica sylvestris*
 P. obscurepunctella honeysuckle
 T. resplendella...alder
 G. alchimiella ...oak [more
 " hemidactylella maple, and sycamore]

LARVÆ]

JULY

- G. semifasciella maple
 " populetella ...birch, aspen
 " elongellain rolled-up leaves
 of birch, and alder
 " tringipennella plantain
 " ommissella, b. *Artemisia vulgaris*
 Hoffmanniella *Orobus niger*
- C. Brogniartella oak
 O. avellanella ...nut
 anglicella.....hawthorn, sloe
 " betulævarella birch
 " torquilella ...sloe
- C. troglodytella *Inula dysenterica*,
 and *Eupatorium cannabinum*
 " siccifoliella ... hawthorn, apple,
 birch
- " limosipennella elm
 " ardeæpennella, b. oak
- L. Raschiella...*Epilobium angustifolium*
 " epilobiella ...*Epilobium hirsutum*
 " decolorella ...in stems of *Epilobium montanum*, E. *parviflorum*,
 E. *palustre*, E. *hirsutum*, &c.,
 producing gall-like swellings
 " subbistrigella in seed-pods of *Epilobium montanum*
- C. Schrankella... *Epilobium alsinifolium*
- A. Langiella.....*Circæa lutetiana*
 A. modestella ...in capsule of *Stellaria holostea*
- C. festaliella.....honeysuckle, raspberry, bramble
- A. Pfeifferella ...dogwood
- S. Brunnichella *Melissa clinopodium*
- E. poella*Poa aquatica*
 " Kilmunella ...*Carex nigrella**Poa trivialis*, &c.
 " subnigrella ...*Bromus erectus*
 " Bedellella ...*Avena pratensis*
 " subobscurella *Holcus mollis*
 " zonariella.....*Aira cæspitosa*
 " cerussella.....reed
 " biatomella ...*Carex glauca*
- T. marginæ (emyella) in bramble
- L. roborellaoak
 hortellaoak
 Amyotella ...oak, nut
 " lantanella.....*Viburnum lantana*
- L. irradiellaoak
 " Bremiella ...vetches
 " lautella.....oak
 " vaccinella ...whortleberry
 " cavellabirch
 " pomifoliella...apple, hawthorn
 " corylellanut, birch
 " spinicolella ...sloe
 " faginellabeech
 " torminella ...*Sorbus torminalis*
 " salicolella.....sallow
 " viminetella ...osier
 " carpinicolella hornbeam
 " ulmifoliella ...birch
 " spinolella.....sallow, willow
 " quercifoliella oak, willow
 " Messaniella ...oak, evergreen oak,
 chesnut, hornbeam
 " corylifoliella hawthorn]
 " Caledoniella hawthorn, birch
 " viminella ...osier, sallow
 " alnifoliella ...alder
 " Heegeriella...oak
 " Cramerella ...oak
 " tenellahornbeam
 " acerifoliella ...maple
 " emberizipennella honeysuckle
 " Frolichella ...alder
 " Nicelliella ...alder
 " stettinella....alder
 " Kleemannella alder
 " Schreberella elm
 " tristrigella ..elm
 " trifasciella ...honeysuckle
 " scabiosæcolella in r. leaves of
 Scabiosa columbaria
 " comparella ...poplar
- L. Clerckella ...sloe, apple, cherry,
 hawthorn, &c.
 " padifoliella ..sloe, birch, &c.
- C. spartifoliella broom; under bark
 " laburnella ...laburnum
 " lotella*Lotus major*
- B. aurimaculella... *Chrysanthemum*,
 and ox eye
 " ulmella.....oak
 " cristatella.....yarrow
- N. atricapitella oak
 " anomalella ...rose
 " perpygmælla hawthorn

LARVÆ]

- N. pomellaapple
- " oxyacanthella hawthorn
- " viscerella.....elm
- " catharticella buckthorn
- " Septembrella Hypericum
- " cryptellaLotus
- " trimaculella...poplar
- " floslactella ...nut, hornbeam
- " salicivorella...sallows
- " myrtillella ...bilberry
- " microtheriella nut, hornbeam
- " betulicolella...birch
- " ignobilella .. hawthorn
- " acetosella.....sorrel
- " plagicolella ...sloe
- " prunetella ...sloe
- " tityrellabeech
- " malella.....wild apple

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- N. atricolella ...apple, hawthorn
- " arcuosaella ...strawberry
- " marginecolella elm
- " glutinosella ...
- " splendidissimella bramble, and dewberry ; rarer in wild raspberry
- " luteella.....birch
- " sorbiellamountain ash
- " centifoliella, b. ... dog rose, and cabbage rose
- T. pulverosella...wild apple
- P. acanthodactylus Bartsia, and rest harrow
- " punctidactylus in seed-capsules of columbine
- " dichrodactylus tansy
- A. polydactyla...honeysuckle, buds

PUPÆ]

Many species are now rapidly "taking to earth," and a large number, besides those specified in the list, could be obtained by diligent searching. But at this period of the year, with

" Its glorious days of golden light,"

and

— " its virgin roses' blushes,
Warm as when Aurora rushes
Freshly from the God's embrace,
With all her shame upon her face,"

greater attractions are presented by the numerous insects which may be obtained in the imago and larva states, especially as the search for many of the pupæ may be safely deferred till a later, and less busy period.

- | | |
|--|--|
| L. sinapis .....on stems of Vicia cracca, and Orobus tuberosus, in woods | V. Atalanta .....suspended, within a chamber formed by united leaves of nettle |
| P. brassicæ .....on palings, walls, &c. | " cardui .....on, or near thistles |
| " rapæ .....on palings, walls, &c. | S. Egeria .....on grass stems, &c. |
| " napi .....on palings, walls, &c. | " Megæra .....on grass stems, &c. |
| A. cardamines ...to April, on stems of grass, &c. | T. betulæ .....on sloe, and birch ; generally on stunted bushes ; placed lengthways, on a leaf |
| G. rhamni.....attached, by a thread, to leaves, and stems of buck-thorn | L. Argiolus .....spun up, closely adhering to the underside of a holly leaf |
| V. polychloros...under copings, and on palings, &c., near elms | L. chrysorrhœa in a slight cocoon, amongst leaves, &c. |
| " Io.....among nettle | |

PUPÆ]

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- L. disparin a slight cocoon, amongst leaves, &c.
 " monachain a web, in bark crevices of oak, birch, apple, beech, fir, &c.
 O. aptiuiato Sept., in a web, on palings, &c.
 T. cratægiin a compact, earthy cocoon, on, or near the surface of the ground, among hawthorn, sloe, &c.
 E. lanestriscocoon, on the ground, near hawthorn, sloe, &c.
 B. castrensisin a cocoon, among, or near *Artemisia maritima*, &c.
 E. erosariaunder moss, on oak, birch, &c.
 " angulariaunder moss, on oak, birch, beech, &c.
 N. zonariasub., on sand-hills hispidariaat oak
 H. abruptaria ...spun up, on twigs, or between the forks, or beneath the branches, of lilac, rose, or privet
 H. rupicapraria to Jan., in a slight web, on the ground, among hawthorn, sloe, or oak
 " leucophearia... to Jan., on the ground, near oak
 " aurantiaria, e. sub., at hawthorn, birch, oak, &c.
 " progemmaria to Jan., sub., at oak, birch, hornbeam, &c.
 " defoliariasub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
 C. brumatasub., at oak, &c.
 O. dilutatasub., at oak, &c.
 L. multistrigaria to Mar., sub., about *Galiu*
 E. decolorata ... to April, about *Lychnis dioica*
 E. venosata to April, about *Silene*, and *Lychnis*
 A. badiatato Mar., in earthen cocoon, on the ground, beneath dog rose bushes [rose derivatato Mar., sub., at dog
- C. russataspun up, on leaf of strawberry, birch, hawthorn, sallow, &c.
 E. lineolatacocoon attached to *Galium verum*, on coast sand-hills, just under the surface
 P. falculabetween united birch leaves
 P. Cassineato Oct., sub., at oak; deep
 C. reclusaspun up, among dead leaves of sallow, poplars, willow
 D. cæruleocephala spun up, at hawthorn, and sloe ; on a twig, or under bark
 C. dilutaamongst leaves, &c., of oak, and birch
 N. geminipuncta in reeds ; may be detected by small hole in the stem
 " lutescensinside stems of common reed
 H. petasitisat r. of *Petasitis vulgaris*; below plants which have a hole in the stem
 " micacea, e. ...at r. of *Cyperacæ*, *Equisetum*, and dock
 A. cursoriaby raking sand-hills, on the coast, near *Euphorbia esula*, sandwort, sea violet, &c.
 " agathinasub., about heath
 " præcox, b. ...by raking sand-hills, on the coast, near dwarf willows, sandwort, sea violet, chickweed, &c.
 N. xanthographa sub., at various trees, and on heaths, &c.
 T. populetito Feb., sub., at poplars, especially *Populus nigra*; deep
 " miniosato Feb., amongst fallen leaves, &c.
 " mundato Mar., under moss, at base of oaks
 A. liturasub., at r. of low plants
 H. croceago.....sub., at oak, just below the surface
 X. citragoat lime ; generally between united leaves ; the larva remains a long time before changing

PUPÆ]

- X. cerago } sub., at sallow
 " silago } sub., at sallow
 " aurago in a cocoon, at
 beech; the larva a long time
 changing
 " ferruginea sub., at sallow,
 poplar, &c.
 C. xerampelina, e. sub., at ash ;
 cocoon very tender, and brittle
 T. retusa sub., at sallow
 C. trapezina, b. at oak, birch, horn-
 beam, &c.; among leaves on,
 or near the surface
 " diffinis, b. at elm; spun up, on
 the trunk, or between leaves, or
 amongst rubbish, at the r.
 " affinis, b. at elm; spun up, on
 the trunk, or between leaves, or
 among rubbish, at the r.
 D. capsophila .. sub., about *Silene*
 maritima
 " capsincola ... sub., about *Silene*
 maritima
 P. chi sub., near low plants
 " *Xanthomista* sub., on exposed
 rocks, on Isle of Man coast
 " flavocincta ... sub., near low plants
 E. lichenea sub., by *Sedum acre*,
 &c.; on the coast
 A. Aprilina, e....sub., at oak
 H. protea sub., at oak
 C. solidaginis, b. sub., about bilberry
 X. conformis ...at alder, and birch;
 under moss, or in folded
 leaves
- C. chamomillæ... among, or near
 chamomile, &c.
 G. libatrix among willow, sal-
 low, and poplar; spun up, in
 the leaves, at end of twigs
 C. nupta, e. at *Salix fragilis*, and
 poplar; among the leaves, or in
 crevices of bark, or under loose
 bark
 " sponsa at oak; among the
 leaves, on the tree
 H. derivalis among sallow, bram-
 ble, and dead oak leaves
 C. fascelinellus... in cocoons, just
 under the sand, among *Triticum*
 juncuum
 H. costella in cocoon, on leaves,
 moss, &c., round oaks
 H. scabrella..... in canoe-shaped
 cocoon, on leaves of hawthorn,
 moss, &c.
 P. rhododactylus on rose
 " acanthodactylus on *Bartsia*, and
 rest harrow, attached to the
 stems
 " hieracii.....on *Hieracium um-*
 bellatum
 " pilosellæon *Hieracium pilo-*
 sellæ
 " phæodactylus on rest harrow
 " pterodactylus on *convolvulus*
 " spilodactylus..... on *Marrubium*
 vulgare
 " tetradactylus on thyme
 A. polydactyla...on honeysuckle

IMAGOS]

The summer harvest of life now teems on every side, as with

" Purple, gold, and green, the living blossoms swarm."

This is the great month for insects in the perfect state, though the very minute species are not so numerous as in June; still all the great divisions, and especially the Noctuæ, and the Tortrices, are well represented. During the hot months of summer, the cycle of insect-life is often so rapidly completed, while the commencement and duration of that cycle vary so much according to the temperature, that not unfrequently a single month includes the time-space in which a species passes through all the stages of its existence; and

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JULY

five to six weeks the period for a brood to hatch from the egg, attain the imago state, deposit eggs, and die. Though woods and forests,

“So thick no bird betwixt their leaves could fly
But she would smite her wings,”

are the most prolific, in the number of species they yield, barren-looking places,

“Where zephyrs wave the balmy wing,
And fan the buxom air,”

will well repay a careful search. Each peculiar locality produces peculiar insects. While the dry land and level country should be made to yield their insect treasures, as they sally forth on floating gauze,

“No jewell'd queen
So rich,”

marshes and mountains, moors and mosses, hills and heaths, woods and forests, cliffs and coast sands, ought all to be diligently explored, for “beauties unespied.” Tree trunks, palings, fences, and walls should not be forgotten. On the latter, if old and covered with lichen, *B. perlæ* will be sure to be found, and often also the rarer *B. glandifera*, much resembling in its mottled green, olive, black, and grey markings, the lichen on the wall upon which it fed when a larva. *B. abietaria* may be found resting on large larch trunks, in elevated districts, generally at no great height from the ground. They must be carefully approached, or they will be lost.

A large number of species may be now captured at light. Thatch-beating may, this month, be advantageously resumed. Heads of rushes should be examined from 9 to 10 o'clock at night, as many moths swarm at them, especially during the last fortnight in this month. Puddles, carrion, &c., attract some butterflies, especially that king of his tribe, the Emperor, who comes,

“flushed with a purple grace,”
“Prouder than when blue Iris bends.”

Even a mass of the despised stinging nettle is often worth visiting, from the moths attracted to the “honey dew,” on the leaves. On dull days many *Noctuæ*, as well as Geometers, may sometimes be found, at rest, on stumps, stones, and leaves.

Although the Collector's “sugar” is the great attraction to which the *Noctuæ* are drawn,

“Swift, as with Daedalean wing,”

to many members of this family light is equally alluring. In fact, bright light seems to have a highly stimulating, dazzling, and no doubt, delightful effect upon nearly the whole of the Lepidoptera : almost all butterflies, and a large number of moths revel in the hottest sunshine ; while brilliant, artificial light seems so highly exciting that many moths “a death of rapture dare” by rushing into the burning flame. Moreover, the *Noctuæ* are not alone open to the attraction of sweets ; at least some members of the other great families of the Lepidoptera are equally so, whether in the form of “sugar,” of honey-scented flowers, or of ripe fruits. During this, the great month for captures of *Noctuæ*, the facts here briefly referred to should not be forgotten.

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- P. Machaonfens, and marshes ; chiefly Cambridge, and Norfolk
- L. sinapis, e. s. woods ; this brood is seldom so abundant as the spring brood
- P. cratægi.....near woods, &c.; local
" brassicæ, e. 2. gardens, &c.
" rapæ, m. 2. ...gardens, &c.
" napi, m. 2. ...gardens, &c.
- G. rhamni, e. ...woods, lanes, &c.
- C. Edusaclover-fields, railway banks, &c. ; some seasons this species is very abundant
- " Hyaleclover fields, &c., more especially near the coast ; in some seasons abundant, in others not seen
- A. Paphia.....woods ; fond of flying among bramble fl.
- " Aglaiaat fl. on hill-sides, coast sand-hills, &c.
- " Niobehill-sides, in company with Aglaia or adippe ; has been taken in the New Forest, at the Devil's Gallop, Windermere, and in Kent, between Wye and Ashford
- " adippewoods ; fond of fl. of Centaurea, &c.
- M. Athaliawoods, and heaths
- V. c-album.....gardens, hop-grounds, woods, lanes, &c. ; fond of fl., and fruits
" urticægardens, fields, &c.
" polychloros ...among elms, and at the sap flowing from Cossus-infected trees
- " Antiopaat fl., and at Cossus-infected trees, &c. ; s. not seen for many years
- " Io, e.woods, gardens, &c.
" Atalanta, e. gardens, fallen fruit in orchards, and Cossus-infected trees
" cardui, e.attracted by thistles, &c. ; rests on dusty roads, and on the leads of tall buildings in the hot sunashine
- L. sibylla, b. ...woods, parks, forests, where honeysuckle abounds ; the flight is lower in the early morning, than later in the day
- A. Iriswoods, &c. ; fond of flying over tops of oaks ; attracted by puddles, exuviae, dead animals, &c. ; generally accompanied by T. quercus ; may be s. brought to earth by a sod, thrown up at it
- A. Galateafields, &c. ; rests on grass stems, in dull weather, and at night
- E. epiphronin marshy hollows, on mountain sides, Scotland
- S. Medea, m. ...Northern moors, &c.
- S. Ægeria, e. 2. woods, & shady lanes
- " Semele, m. ...hills, dry pastures, heaths, coast sand-hills, &c.
- " Ianirafields, &c.
- " Tithonushedges, &c.
- " hyperanthus...woods, &c.
- C. DavusNorthern moors
- P. Pamphilus, 2. fields, &c.
- T. quercuswoods, &c. ; flies over the tops of oak, and ash, in the sunshine, and rests under the leaves at night, and in dull weather
- " w.-album.....flies over trees, in the sunshine, especially wytch elm ; is attracted by fl. of grass, and other fl. ; may be s. brought down by a clod
- " pruniwoods
- " betutæ, e. ...woods ; at fl. ; in dull, or wet weather may be found hanging from the underside of leaves of sloe, and other bushes
- P. Hippothoe ...formerly in the Cambridge fens ; now supposed to be extinct in this country
- Phæcas, s. ...fields, &c.
- L. Ægonrests, at night, on heath, &c.
- Alexisfields, &c. ; rests on grass stems, &c., in dull, and windy weather, and at night

IMAGOS]

JULY

- L. Corydon, e....chalk downs, and limestone hills
 " Acis formerly near Leominster ; now supposed to be extinct in this country
 " Argiolus, e.... among holly, and ivy ; this brood is seldom so abundant as the spring brood
 H. comma, e.hills, &c.
 " linea fields, and woods
 " Actæon, m....if the season is forward ; on the Dorset coast, flying with H. linea ; does not continue fine long after it is out
 A. atroposat rest, on palings, &c.
 D. euphorbiae ...has occurred on the coast, and at Killiney, Ireland, among sea spurge, and cypress-leaved spurge
 " galiion the sand-hills at Deal, and other parts of the coast, among bedstraw
 S. chrysidiiformis at Folkestone, and Eastbourne, and probably other places on the S.E. coast ; flies from about 9 to 11, a.m., and 3 to 4, p.m. ; "booms along like a burnet"
 " ichneumoniformis by sweeping the fl. of rushes, &c., on slopes on the coast ; hovers over fl.
 " muscaeformis on the coast, among sea pink
 " scolæformis ...on birch trunks
 " bembeciformis among osiers, sal-lows, &c.
 Z. aesculion trees, &c.
 C. ligniperda ...on trees, and palings
 H. sylvinus, e.on heaths, and grassy lanes, and banks ; flies just before dusk
 " velledaon walls, and in crevices of birch trunks
 L. asellushas been beaten
 Z. minosflies in the sunshine, and rests on fl.
 N. cucullatella...on trees, and palings
 " strigula.....
 " centonalis.....
- N. albulalishas been taken in young ash plantations, in Kent
 N. senex, e.in wet places ; flies at night
 " mundanabeaten from weeds, against loose stone walls
 S. irrorellaon lichen-covered trees
 C. miniata.....beaten from trees
 L. mesomella .. on lichen-covered trees
 " muscerda ... in sens, among alder; flies in the evening
 " aureolaon larch trunks, high up ; and may be beaten from trees
 " deplanabeaten from yew, and other trees
 " lurideolacomes to fl., rests among herbage, &c.
 " molybdæola ...
 " complana.....flies at dusk, and after dark
 " griseolaon lichen-covered trees ; comes to fl.
 " stramineola (var.) by moist wood-sides, and ditches
 " quadrabeaten from fir, and oak ; comes to fl. of lime, &c.
 " rubricollis ...flies in the sunshine, over trees, &c.
 E. grammica.....heaths, &c.
 " cribrumheaths, &c.
 D. pulchella.....has been taken flying by day, in stubble fields, probably near the field forget-me-not, its food-plant
 E. jacobaeægardens, fields, &c. ; flies in the sunshine
 C. caia.....gardens, &c. ; at rest; very sluggish
 L. chrysorrhæa at rest
 " auriflua..... at rest, on hedges, trees, &c.
 " salicis, e.on willows, and pop-lars
 " disparformerly found at large ; now bred artificially
 " monachaat rest
 O. cœnosa.....fens, and marshes

IMAGOS]

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- O. gonostigma...very local
 " antiqua.....♂ often seen flying about wildly just before rain
- B. neustriaat rest
 " castrensis.....at rest ; on the S.E. coast
 " quercus (callunæ) heaths, &c.
 " roboris (quercus) flies at dusk ; more frequently met with in the larva state
- O. potatoriaat rest, among coarse grass, &c.
- O. sambucata, b. flies wildly at dusk, and soon after dark ; not always quiet, when boxed
- E. vespertaria ...flies from 7 to 9, or 10, a.m.
 " apiciariahedges, &c. ; flies soon after 7, a.m.
 " advenaria.....among bilberry, and grass, in woods
- R. cratægata.....hedges, &c.
- A. prunariawoods ; flies in the sunshine, also at dusk
- M. margaritata...hedges, &c.
- E. fasciaria, h....beaten from fir trees ; flies at night
- P. syringaria ... gardens, &c. ; flies at dusk, over fl.
- S. illunaria, b....at rest, on trees, &c.
 " illustraria, e. z. the summer brood, or var. delunaria
- C. elinguaria, e. hedges, &c.
- E. erosariaat rest
 angularia.....on trees, &c.
- C. glabaria, e. on fir trees, &c.
 " lichenaria.....on lichen - covered oaks
- B. repandata ...
 " rhomboidaria
 " perfumaria
 " abietaria, b.
 " roboria
 " consortaria
- G. obscurata ...s. flies by day
- D. obsfuscata.....on heaths, about Scotch mountains
 P. trepidaria..... flies by day ; on mountains, in Scotland
 M. cineraria.....
 P. cytisariaheaths, forests, and waste places, on the coast ; may be beaten from broom, furze, and heath
 G. papilionaria...comes to l. ; flies at dusk ; may be beaten from trees, in the day time ; has been found among brake fern
 " smaragdaria...on the Kent, and Essex coasts
 I. vernaria, b.beaten from clematis, chiefly in elevated, and exposed situations
 P. baiulariaamong oak ; flies at dusk
 H. thymaria ...hedges, &c.
 H. Auroraia ...
 A. sylvata.....woods
 " Blomeraria .. on wooded hill-sides, near wytch elms, at rest, on tree trunks
 E. hepaticaamong alder
 V. cambricaria...at rest, on rocks
 A. rubricataheaths, and coast sand-hills; flies just before sunset
 " scutulatahedges, &c.
 " bisetatahedges, &c.
 " contiguaria ...Conway, Bangor, &c.
 " herbariata ...has been found in herbalists' shops
 " rusticataPortland, and Northfleet,—very local ; resting flat, on ivy leaves ; flies at dusk
 " dilutaria
 " interjectaria...Plumstead marshes, and Folkestone
 " holosericata...Bristol, and Thetford
 " incanariaon palings, walls, &c., near gardens
 " ornatagrassy hills, &c.
 " straminata ...
 " mancuniata ...
 " subsericeata...beaten from wild rose bushes, on hills
 " immutata.....fens, &c.

IMAGOS]

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- A. strigilata Folkestone, among clematis
 " emutaria salt marshes of Kent, (Sheerness), Norfolk, (King's Lynn), and the New Forest ; flies at dusk. The Sheerness specimens are more tinged with rose-colour, than the others
 " aversata woods, &c.
 " inornata at rest, on fir trunks ; flies at dusk
 " degeneraria ...at rest, on various plants, and on the rock, at Port-land
 " emarginata, b.
 T. amatoria hedges, and waste places
 C. exanthemaria woods
 M. alternata
 " lituratafir woods
 H. vauaria in gardens
 S. plumaria.....heaths, &c.
 F. pinetariaScotch heaths ; flies in the sunshine
 " conspicuata ...on broom
 M. euphorbiata, 2? woods
 S. sacrahas been taken at l., at sugar, and at fl. ; and also flies by day
 L. purpuraria ...on dry hills, in the North ; flies by day
 A. ononariaamong rest harrow
 A. strigillaria ...on heaths
 A. grossulariata in gardens, and hedges
 " ulmata woods, &c., near wytch elms
 L. adustataamong spindle
 L. marginata ...woods
 L. ruficinctata ...woods
 " salicata.....
 " olivatawoods
 E. tæniata.....the Lake district, &c.
 " unifasciata ...local
 " bifasciata ? ...in an old hedge
 " ericotataheaths ; at fl. ; flies by day
 " blandiatahills, &c.
- E. centaureata...on palings, &c.
 " succenturiata beaten from haw-thorn
 " subfulvata ...at fl.
 " arceuthata ...flies among juniper, and savine
 " trisignata
 " fraxinataamong ash
 " innotataat Wallasy
 " constrictata ...
 " subnotata.....often on river banks
 " campanulata at fl., in woods, &c.
 " vulgata, 2. ...at rest
 " expallidata ...
 " absynthiata ...
 " knautiata.....among Knautia arvensis, very local
 " tenuiatabeaten from sallows
 " subciliata, e. beaten from maple
 " sobrinatabeaten from juniper, and at fl.
 " pumilata, 2....
 T. firmata.....among larch
 Y. elutata.....woods ; flies high, when disturbed
 M. rubiginata ...
 " albicillata ...
 M. hastataflies in the sunshine, generally after 2 p.m. ; may be beaten from birch, and other trees ; very pugnacious
 " tristata
 " procellata ...among clematis
 " unangulata ...beaten from hedge banks
 " rivata
 " sociata, e.....
 " montanata ...woods
 C. munitatafond of settling on underside of fallen trees quadrifasciaria on palings, &c.
 C. bilineatahedges
 " fluviataat l., at sugar, and at fl. ; at Rannoch, &c.
 P. tersataamong clematis lignata
 S. vetulata, b.among buckthorn
 " rhamnatacomes to fl.
 " undulatawoods
 C. picatabeaten from bushes

IMAGOS]

- C. sagittatain fens
- " russatawoods
- " immanata.....
- " reticulatathe Lake District,
 &c.
- " prunata
- " testata
- " populata
- " fulvatabeaten from bushes
- " pyraliatagardens, and fields
- " dotatanear woods
- P. comitata
- E. mensuraria ...
- " bipunctaria ...on the chalk, and
 limestone
- " lineolata ..rests on coarse grasses,
 on the coast
- C. imbutata
- L. griseataon the Norfolk coast,
 among Sisymbrium
- C. obliquaria ...among broom ; does
 not fly till between 10 and 11,
 p.m.
- T. chærophyllata in grassy places, in,
 and near woods ; flies in the sun-
 shine
- P. lacertulabeaten from birch
- D. furcula.....
- " bifida.....
- S. fagiat rest, on tree
 trunks, in beech woods
- P. bucephala ...at rest ; at light
- C. curtula, 2.....
- P. palpina, b.comes to l.
- N. camelinaat light ; hides on
 fronds of fern, and in, and on
 trees
- " cucullina“ comes out mostly
 when the glass is near 80 deg.,
 and a thunderstorm is imminent”
- " dictæa, b.at rest, at base of
 willows, and large poplars
- " dictæoides ...rests on birch
- " tritophus
- " ziczac, b.hides in bark
 crevices of poplar
- T. derasa
- " batisflies over brambles,
 at dusk
- C. duplariis

JULY

- C. fluctuosathis, and C. or do
 not always travel quietly, when
 boxed
- " or, b.s. on aspens
- B. glandifera.....on old walls
- " algae
- " perlæ.....on old walls
- D. Orionat rest, on oak trunks
- A. tridens} at rest, on trees,
 " psi.....} palings, &c.
- " leporinarests on tree trunks,
 s. high up
- " acerison trunks of sycamore,
 more, and palings, near
- " strigosaat sugar
- " ligustri, b.on ash trees
- " rumicis.....
- " auricoma
- " myricæ.....heaths, &c. in the
 N.
- L. conigerain grassy places
- " turca.....among grass
- " lithargyria, h.
- " obsoletain wet places
- " Loreyi
- " putrescens ...among grass
- " littoralison coast sand-hills ;
 settles on tufts of Ammophila
 arenaria
- " pudorinamarshes, and fens
- " comma
- " straminea ...marshes, and fens
- " impura
- " pallens
- " phragmitidis marshes, and fens
- T. Bondiiin wet places ; rests
 on stems of grass, at night
- S. ulvaemarshes, &c.
- N. despectamarshes, and fens
- " elymion coast sand-hills ;
 very sluggish ; hides among
 Elymus arenarius, and maram
 grass, from which it may be
 shaken
- " neurica.....in wet places
- " geminipuncta in wet places
- G. flavago.....in marshy spots, near
 thistles
- H. nictitansat ragwort, thistle,
 &c., and among grass

IMAGOS]

- A. putris*at r. of trees
- X. rarea*
 - " *lithoxylea*among grass
 - " *sublustris*
 - " *polyodon*
 - " *hepatica*
 - " *scolopacina*damp, grassy places
- A. Australis*among grass, near the S. coast ; comes to l.
- N. saponaria*at sugar, and l.
- C. graminis*, e....on commons, &c.; s. at ragwort, and thistle fl.
- P. leucophaea* ...among grass
- C. cytherea*dry, grassy places
- C. exulis*has been taken at sugar
- M. abjecta*among coarse grass
 - " *anceps*marshes, and fens
 - " *furva*in grassy places
 - " *brassicæ*hides on palings, walls, &c.
 - " *persicariae* ...on palings, under eaves, walls, &c.
 - " *connexa*
 - " *geminata*in grassy places
 - " *unanimis*marshes, and fens
 - " *ophiogramma*marshes, &c.; s. at l.
 - " *fibrosa*in marshy places
 - " *oculea*
- M. strigilis*
 - " *fasciuncula*at fl.
 - " *literosa*on the coast
 - " *furcula*
 - " *arcuosa*flies at dusk, for a short time, then settles on fl., and the foliage of its food-plant
- P. captiuncula* (*expolita*) at Darlington
- C. Haworthii* ...
- G. trilinea*.....
- H. palustris*s. comes to l.
- A. caliginosa* ...
- C. Morpheus* ...
 - " *alsines*
 - " *blanda*
 - " *cubicularis* ...beaten from thatch ; flies in hay fields
- R. tenebrosa*.....
- A. valligera*at fl.; mostly on the coast

JULY

- A. suffusa*
- " *fennica*
- " *saucia*at l., sugar, and fl.
- " *segetum*
- " *lunigera*, e....
- " *exclamationis* often in kitchen gardens
- " *corticea*
- " *cinercea*
- " *ripæ*under pieces of wood, &c., near the coast
- " *cursoria*by beating, on coast sand-hills
- " *nigricans*
- " *tritici*
- " *aquilina*
- " *porphyrea* ... among heath
- " *præcox*on sand-hills, by the coast
- " *ravida*
- " *pyrophila*at fl.
- " *helvetica*
- " *lucernea*
- " *Ashworthii* ...very local
- T. ianthina*
- " *fimbria*at l., and sugar
- " *interjecta*
- " *subsequa*at l., and sugar
- " *Orbona*at l., and sugar
- " *pronuba*at l., and sugar
- N. depuncta*
- " *augur*
- " *plecta*
- " *flammatra* ...
- " *c.-nigrum*comes to l.
- " *ditrapezum* ...New Forest, Birch-wood, &c.
- " *triangulum* ...
- " *rhomboidea* ...at l.
- " *brunnea*
- " *festiva*
- " *conflua*
- " *Dahlii*
- " *subrosea*in fens
- " *rubi*
- " *umbrosa*at ragwort fl.
- " *baia*
- " *sobrina*at Rannoch
- " *neglecta*, e....at sugared rags, on heather

IMAGOS]**JULY**

- N. xanthographa*
P. alpinahas been taken in
 Perthshire
O. suspecta
 " *upsilon*flies over willows
X. ceragoon leaves, and twigs
 of lime trees, at night
T. subtusacomes to l.
 " *retusa*, e.comes to l.
E. fulvago, e.on heath fl.; Sher-
 wood, and the Lake District
D. oocomes to l.
C. trapezina
 " *difflinis*comes to l.
 " *affinis*comes to l.
E. ochroleuca ...at fl.; rests on knap-
 weed, thistles, &c.
D. irregularis ...at rest, on viper's
 bugloss, and in crevices of bark
 of trees
 " *carpophaga*, b. at dusk, at *Silene*
 fl. The whole genus are
 attracted by fl.
 " *capsophila* ...
 " *conspersa*.....
 " *cæsia*generally on the
 coast
H. dysodea, b.at fl. of red valerian
 " *serena*, b.on trees, palings,
 &c., near kitchen gardens, &c.
P. chion trees
E. viminalis, b. rests among sallows
P. meticulosa ...
E. lucipara
A. herbidawoods, &c.; very
 local
 " *occulta*.....at rest; flies early
 in the morning; unquiet when
 boxed
 " *tincta*on trees, stumps,
 and palings; unquiet when
 boxed
 " *advena*, b.at fl.; rests on
 stumps, and trees
H. adusta
 " *glauca*
 " *dentina*.....on trees
 " *chenopodii* ...at fl., and l.
 " *oleracea*among herbage
 " *pisi*
- H. thalassini*, b.
 " *contigua*
 " *rectilinea*at rest, on stones,
 &c., on dull days
C. lychnitis
 " *asteris*
 " *absynthii*
 " *chamomillæ*...at rest
 " *umbratica* ...at rest, on palings,
 and at fl.
H. marginata ...
 " *peltigera*may be started from
 herbage
 " *dipsacea*flies over fl., in the
 sunshine
A. myrtillion heaths; flies in
 the sunshine
A. sulphuralis ...at light; s. on fl. of
 knapweed, in the day time;
 flies quickly a little way, when
 disturbed
A. luctuosaflies in the sunshine,
 over fl., in clover fields, &c.
 "solaris"
- E. venustula*.....
 " *fuscula*s. in fir woods
H. unca.....marshes, and fens
M. ostrina.....in sheltered spots,
 on sand-hills
 " *aula*?at Freshwater, Isle
 of Wight
A. urticæ{ among, or near
 " *tripplasia*} nettle
P. orichalcea ...on the coast
 " *chrysitidis*among *Glechoma*
 " *bractea*
 " *iota*among *Glechoma*

 " *v. aureum* ...at *lychnis* fl., &c.
 " *gamma*.....flies in the sunshine
 " *interrogationis* flies wildly; rests
 on rocks, and stumps, in dull
 weather
A. pyramidea ...
 " *tragopogonis* hides in windows
M. typicarests on walls, &c.
 " *maura*s. rests on inner
 surface of roofs of outhouses
T. pastinum... ...beaten from bushes
 " *craccae*

IMAGOS]

- S. anomala*at heath fl., at night,
and flies along hedge-rows ;
remains fine but a very few days
after emergence
- C. nupta*, e.at rest, on trees and
walls ; soon alarmed, when
approached ; comes to l.
" *promissa* ... } in the New Forest,
" *sponsa* } Norfolk, &c.; all
the genus are rest-
less when boxed
- P. æneæ*flies in the sunshine
- M. salicalis*among long grass,
and marshes, in wood-paths,
and young underwood
- H. proboscidalis* among nettle
" *rostralis*in gardens; at sugar
" *crassalis*, b....on heaths, among
bilberry
- H. albistrigalis*...at rush fl., and s.
sugar
- " *costæstrigalis* at rush fl., and s.
sugar
- S. turfosalis*in marshy places
- R. sericealis*in marshes, and
damp woods
- S. emortualis* ...has been taken at
sugar
- H. derivalis*comes to l.
- " *barbalis*beaten from under-
growth
- " *tarsipennalis* woods, &c.
- " *grisealis*woods, &c.
- " *cibralis*in fens, &c.
- A. flexula*has been beaten from
hedges
- O. dentalis*on the coast, among
viper's bugloss
- P. fimbrialis*comes to l.
- " *farinalis*in stables, corn
stores, &c.
- " *glaucinalis* ...in thatch, and at l.
- A. pingualis* ...on walls of stables,
houses, granaries, &c.
- C. cuprealis*occurs in houses
- C. angustalis*.....
- P. punicealis*.....edges of woods, &c.
- " *purpuralis*(?) flies by day; rarely
taken at light
- H. cespitalis*.....in grassy places

JULY

- E. cingulalis*.....on grassy hill-sides,
&c.
- E. octomaculalis* in woods
- A. nemoralis* ...at Holme Bush, near
Henfield, Sussex
- E. flammealis* ...on sloping hills, and
cliffs, near the sea, among fern;
very local [places
- D. literalis*generally in dry
- N. cilialis*in fens, &c.
- S. punctalis*among Iris foetidis-
sima
- C. leminalis* ...flies over duckweed-
covered ponds, at dusk ; comes
to l.
- P. stratiotalis* ...flies at dusk, among
water-plants ; comes to l
- " *nymphæalis* ... } rest among water-
" *stagnalis* } plants ; fly at
dusk
- A. niveus*at rest, on twigs, &c.,
in weedy ponds, and rivers, close
to the water's edge, or flying
slowly over the surface
- B. flavalis*in chalk, and lime-
stone districts, on the S. coast
- " *hyalinalis*in chalk, and lime-
stone districts
- " *verticalis*among nettle
- " *lancealis*in damp woods, or
lanes, near
- " *terrealis*Lynmouth, Conway
- " *asinalis*at light
- " *urticalis*among nettle
- E. crocealis*among fleabane
- " *verbascalis* ... among *Teucrium*
scorodonia
- sambucalis* ...among elder
- P. forficalis*in gardens
- " *margaritalis*...fens, &c.
- " *straminalis*...beaten from brake
fern, and undergrowth, in woods,
fens, &c. ; comes to l.
- S. sticticalis*among *Artemisia* ;
at l. and fl.
- " *palealis*.....among wild carrot,
and *Peucedanum*, on the S.E.
coast
- " *cinctalis*in clover fields ;
comes to l.

IMAGOS]

JULY

- S. alpinalis*on the tops of mountains, in Perthshire, &c.
 " *lutealis*in hedges
 " *olivalis*in hedges
 " *prunalis*in hedges
- L. pulveralis*single specimens have occurred at Folkestone, Isle of Wight, and Ranworth
- S. ambigualis*s. at sugar, and at rest. Many of the genus, which are mostly moss, and lichen-feeders, may be found at rest on walls, palings, &c.
- " *basistrigalis* ...at rest, on oak trunks; s. at sugar; has occurred among birch, and alder, in Tilgate Forest, Sussex
- " *Zelleri*beaten from old willows, and hawthorns
- " *ulmella*.....on trunks of wych elm
- " *cembrae*on tree trunks, &c.
- " *murana*.....among heath
- " *mercurella* ...
- " *crataegella* ...
- " *resinea*on ash trunks; very local
- " *phæoleuca* ...
- " *truncicolella*...on fir trunks
- " *atomalis*among heath
- " *gracilalis*
- " *alpina*
- " *pallida*in fens, &c.
- P. cerusellus*.....in grassy places, among shingle
- " *alpinellus*..... in sandy, grassy places, especially in fir woods; not a mountain species
- C. verellus*among grass, and moss
- " *falsellus*common in England, more local in Scotland
- " *dumetellus* ...local
- " *ericellus*on moss, among heath; local
- " *sylvellus*in fens, &c.; local
- " *hamellus*in grassy places, among heath
- " *pascuellus*.....damp meadows, and moors; local; s. at sugar
- C. uliginosellus* in fens; local
 " *furcatellus* ...a mountain species in Britain, not below 2,000 ft.
 " *margaritellus* damp, grassy places, in open woods, more especially in the Highlands
 " *myellus*Rannoch, Braemar, &c.
 " *pinetellus* ...best obtained at night, by searching dry banks
 " *latistriellus* ...on coast sand-hills; local
 " *perellellus*local
 " *Warringtonellus* on mosses and moors, and on the coast; very local
 " *selasellus*fens, and wet meadows
 " *tristellus*in damp, mossy places
 " *fascelinellus*...on the coast, near Yarmouth; at rest, on the sand
 " *inquinatellus* among alder bushes, and on heaths; s. at sugar
 " *contaminellus* dry pastures; rather local
 " *geniculellus* ...among thick grass
 " *culmellus*common in fields
 " *hortuellus*....in grassy places
 " *paludellus* ...in the Norfolk fens
- C. cicatricellus*...in wet places
- S. forficellus*.....weedy ditches, &c.
- " *mucronellus*...fens, &c.
- " *gigantellus* ...marshes, &c.
- A. lotella*on coast sand-hills; flies at dusk
- " *farrella*on the coast
- I. carnella*.....local
- M. cribrella*among thistles, often on hills
- H. sinuella*Brighton, &c.
- " *nimbella*among Jasione montana, and thistles, and ragwort, on the coast
- " *nebulella*among Carduus nutans, &c.; very local
- " *binævella*.....local
- " *senecionis*, 2? [coasts
- N. achatinella* ...on the S. and E.

IMAGOS]

JULY

- E. elutella in grocers' ware-houses &c.; also in thatch
 " semirufalocal
 " pinguisrests on ash trunks; comes to l.
 " cinerosellalocal
 C. bistrigalocal
 P. interpunctella in corn, seed, and grocers' warehouses, &c.
 N. genistellaamong furze; Isle of Wight, and New Forest
 G. canella Folkestone, Hastings, &c.
 P. betulellaamong birch, &c.
 " carbonariella among burnt heath, and birch
 " dilutella
 " subornatella...
 " obductella ...
 " ornatellalocal
 " abietellamay be beaten from young fir trees
 " roborellaamong oak
 P. palumbellaamong heath
 R. formosellaat light
 " consociellas. at sugar
 " advenellaamong hawthorn
 " marmoreaamong old sloe bushes
 " suavellaamong sloe
 " tumidellaamong oak
 " rubrotriella
 O. ahenella
 M. sociellanear beehives
 " anellaon the coast
 M. alveariellaamong beehives, to which the larva, which lives on the wax, is destructive
 H. prasinanawoods
 " quercanawoods; at sugar; and may be beaten from trees
 S. Revayanawoods, &c.
 T. podanahedges, &c.
 " piceanawoods
 " crataeganaoak woods, in the S.
 " xylosteanawoods
 " sorbianawoods
 " rosana
 " dumetanamarshes, and fens
 " diversanaKent, Surrey, Essex
- T. cinnamomeana... Kent, Surrey, Hants, Essex, Norfolk, &c.
 " heparanahedges
 " ribeanahedges
 " corylanawoods
 " unifascianahedges
 " semialbanaon the chalk
 " costanafens, and marshes
 " viburnanaboggy heaths, and moors
 " icteranadry banks
 " viridana
 " adjunctana ...
 " BranderianaEssex, Cambridge, Hants, &c.
 D. Grotianaamong oak, in woods
 " gnomaniawoods
 A. Gerninganaheaths, and moors
 C. PillerianaSouth coast
 L. Boscanaamong elm
 P. mixtana, h.moors
 " Caledonianamoors
 " aspersanadry banks, Yorks, &c.
 " Shepherdanafens
 " lipsianaWitherslack, Rannoch, &c.
 T. caudanawoods, and fens
 " contaminanahawthorn hedges, &c.
 D. lorquinianafens
 " Loeflingianaamong oaks, in woods, and hedges
 " Holmianahedges
 " Foskaleanamaple hedges, &c.
 " Conwayana ...
 P. Lecheanawoods
 D. Hartmannianaamong willows
 " semifascianaamong sallows
 P. picanaon birch trunks
 " sororculanaamong birch, and willows
 " prelonganaamong birch
 " ochroleucanaamong rose
 " sellanachalk districts
 " marginanadamp woods, heaths, and fens
 " carbonanawoods, and fens
 A. salicanaamong sallow, and poplar

IMAGOS]

JULY

- S. lariciana*in larch woods
 " *ocellana*among alder
 " *neglectana*among willows
 " *incarnatana* ...among Rosa spinosissima, on the coast
 " *suffusana*hedges
 " *roseolana*in gardens, among roses
 " *robora*woods
P. tripunctana ...gardens, and hedges
A. Udmanniana among bramble
S. achatana among hawthorn, and sloe
S. euphoriana...*S. coast*
 " *bifasciana*....among Scotch fir
 " *abscisana* ...at Folkestone, among Inula, and thistles
 " *littoralia*banks, on the coast
 " *cespitalia*on the coast, and other sandy districts
 " *conchana* ...meadows, & marshes
 " *lacunana*a smoky-black var., with lustrous lines, is found in the Norfolk fens, and also a small var.
 " *urticana*woods
 " *micana*marshes
 " *irriguana*grassy slopes of Scotch mountaints
 " *Doubledayana*... Ranworth, and Horning fens
M. Schulziana ...heaths, and mosses
 " *Ratzelburgiana* among spruce, and Scotch fir
E. mygindana ...Northern heaths
 " *rufana*
O. antiquana ...corn fields
 " *striana*.....dry banks, and rough pastures
E. fractifasciana downs
 " *quadrana*Kent, Surrey, &c.
C. cinctanaFolkestone
 " *politana* ...heaths, &c.
S. nubilanahawthorn hedges
 " *Peterana*dry banks
 " *subjectana* ...
 " *virgaureana* ...
 " *chrysanthaea* dry banks
 " *Wahlbomiana*
 " *pasivana*on the coast
- S. abrasana*
 " *hybridana* ...among elm, and sloe
 " *penziana*
 " *Colquhounana* wild hills, on the Scotch, and Irish coast
S. ictericana.....hay fields, and sand-hills
B. lanceolana ...among rushes
 " *furfurana*local
P. unguiculana ...heaths
 " *biarcuana*.....among sallows
 " *derasana*Southern woods
Mitterpacheriana oak woods
G. ramanaamong birch
 " *misana*among sallow; local
 " *nigromaculana* among ragwort
 " *campolitana* among sallow
 " *minutana*on poplar
 " *trimaculana*...among elm
 " *Penkleriana*...among nut, & alder
 " *geminana*.....moors, among *Vaccinium*
 " *ravulana*Kent, and Essex
P. Demarniana...Southern woods
H. crucianaamong sallow
B. angustoriana garden hedges
P. bilunana
 " *corticana*among oaks
 " *occultana*.....among young firs
 " *semifuscana*...among sallows
E. bimaculana ...woods
 " *cirsiana*in lanes
 " *Brunnichiana*...in waste places, among coltsfoot
 " *turbidana*Preston
 " *foenana*.....on the coast, and in fens, among *Artemisia vulgaris*
 " *nigrocostana* in lanes, among *Stachys* [mond, Yorks
 " *signitana*Witherslack, Rich-
 " *grandævana*...*S. Shields*, among coltsfoot, on ballast heaps; flies at dusk, and rests on the leaves
 " *trigeminana*.....fields, and dry banks among ragwort
 " *tetragonana*...among black briony
 " *populana*among sallow
 " *obscurana* ...Darenth
O. ulmanaWitherslack, Harrogate, Norfolk, Surrey, &c.

IMAGOS]

JULY

- S. spiniana hawthorn hedges
 " ianthinana ...
 " rufillana among wild carrot
 C. ravulana Kent, and Essex
 " hyrciniana among spruce
 " ustomaculana N. of England, and
 Scotland
 " nanana among spruce
 P. mercuriana Northern hills, and
 mountains
 R. Buoliana among Scotch fir
 " pinicolana ... among Scotch fir
 " pinivorana ... among Scotch fir
 " sylvestrana Bournemouth, Kent
 C. grossana among beech
 E. nigricana, b. among peas
 S. dorsana railway banks
 " confierana ... among Scotch fir
 " Leplastrierana among wild cab-
 bage, on the S.E. coast
 " corollana among aspen; local
 " internana Eastern counties,
 &c., among furze [trefoils
 " composana ... among clover, and
 " redimitana ... among under-growth
 " regiana among sycamore
 " roseticola ... among wild rose
 " orobana Darlington, Scarboro'
 D. politana dry banks, among
 yarrow; Norfolk, Kent
 " alpinana at river sides, among
 tansy
 " Petiverana ... among yarrow
 " saturnana Isle of Wight, and
 grassy places in the S., and
 Scotland
 " acuminatana railway banks
 " herbosana, b. Scotland, and N. of
 England [vulgaris
 " simpliciana ... among Artemisia
 " tanacetana ... Exeter
 " consortana ..meadows
 C. ulicetana among furze
 " Juliana among oak
 " micrograminmana among rest harrow
 " hypericana ... among Hypericum
 " parvulana Isle of Wight
 " maritimana ...coast of Essex, and
 Kent; among Artemisia mari-
 tima
- C. cana among thistles
 " fulvana chalky districts, among
 Centaurea scabiosa
 " Hohenwarthiana among thistles
 " Scopoliana ... among Centaurea
 nigra
 " cecimaculana Mickleham
 " æmulana Southend
 " expallidana ... dry banks
 " citrina Lancashire, and S.
 coast
 T. mediana near London, Folkes-
 tone, Fulborne
 S. vibrana among thistles; very
 local
 C. scintilulana ... marshes
 E. dubitana Farnham, Bristol,
 Scotland
 " atricapitana ... among ragwort
 " sodaliana among Rhamnus
 catharticus
 " ambiguana ... among Rhamnus
 frangula
 " Degreyana ... Norfolk
 " angustana ... on heaths, &c.
 " vectisana Fleetwood, and Isle
 of Wight, among sea-plantain
 " rupicolana ... marshes
 " flavigiliана ... S. downs
 " subroseana ... woods, in the S.
 " implicitana ... woods, in the S.
 " anthemidana, 2. chalk districts
 " pallidana cliffs
 X. Zoegana among scabious,
 and knapweed
 " hamana among thistles
 C. tesserana, b. on the coast, &c.
 " rutilana among juniper
 A. sub-beumanniana in chalk-pits,
 and dry fields
 " zephyrana ... S. coast
 " badiana railway banks, &c.,
 among burdock
 " cnicana among thistles
 C. dipoltana on chalk, in the S.
 " Smeathmanniana London district,
 Darlington
 " straminea...chalky places
 " alternana Folkestone
 " inopiana among Inula

IMAGOS]**JULY**

- A. osseanamarshes
 P. betulina (anicanella) Hampstead
 " radiella, e.
 P. Verhueliella...flies in the sunshine, among hartstongue, and Asplenium
 X. argentinimaculella
 P. Birdellain pasture fields, among grass
 " bisonella.....in heathy places
 " vaculellafrequents houses
 S. chorargella ...Cumberland
 " picarellaManchester, and Newcastle
 " granellaabout granaries, and flour mills
 " cloacella
 " arcella
 T. imellascarce, and local ; found where the fields are manured with furrrier's refuse
 " ferruginella ...
 " rusticella ...
 " tapetrella.....common, in houses
 " albipunctella Witherslack, &c.
 " confusella....Howth, Hartlepool
 " caprimulgella...Hackney, Hyde Park
 " misellain outhouses
 " pellionella ...common, in houses, its larva feeding on cloth, fur, &c.
 " fuscipunctella
 " pallescentella in warehouses, and poultier's shops
 " ganomella ...woods, and hedges
 " merdella ...Darlington, Liverpool, Manchester
 " biseliellain houses, and museums, its larva feeding on hair, fur, and feathers
 " simpliciella ...Mickleham, Dover
 " nigripunctella Yorks, &c.
 " semifulvella ..
 " sub-ammanella has occurred at Tor Wood, Stirling
 " perochraceella Rannoch
 L. luzella[Cambs]
 N. metaxella ...Witherslack, Yorks,
 A. viridellain hedges, and among oak
- N. SchiffermillerellaSouthend, Darenth
 " minimella ...
 S. comptella.....among sloe
 " cesiellaamong sloe
 " lutarellaon hedges
 S. crataegella.....on hedges
 Y. vigintipunctella, e. Guildford, &c.
 " plumbellula..... among Euonymus europaeus
 " irrorellanear Wandsworth
 " padella.....among hawthorn
 " cognatella ... among Euonymus europaeus
 " evonymella ...among Prunus padus
 P. Curtisellaamong ash
 P. xylostella.....among Cruciferae
 " porrectella ...in gardens
 " annulatella...Howth, Castle Eden, Scotland, Portland, &c.
 Dalella.....on moors
 H. sequellaon trunks of sycamore and maple
 " vittellaon trunks of elm, and beech
 Y. lucellaamong young oaks
 " horridella.....New Forest
 " asperella, e. formerly at Glanville's Wotton
 H. scabrella
 " nemorella ...among honeysuckle
 " harpellaamong honeysuckle
 O. sparganiella in fens, among Sparagnum
 P. querellaamong oak
 E. Allisellacoasts of Cheshire, Lancashire, Norfolk, &c., among Artemisia vulgaris
 D. costosella ...among furze
 " liturellaamong Centaurea
 " assimilella ...among broom
 " nanatellaamong thistle
 " atomellaamong broom
 " arenella
 " propinquella, h.
 " subpropinquella, h.
 " Alstræmeriella, h. among Conium maculatum
 " cinifonella, h. Rannoch
 " vaccinella.....Lytham

IMAGOS]

D. hypericella ...among Hypericum
 " conterminella among sallows
 " anglicella.....among *Anglica syl-*
 vestris
 " carduella
 " ocellellaamong sallow
 " appanella, h.
 " pimpinella ...
 " bipunctosella, e. New Forest, Isle
 of Wight
 " albipunctella, h.
 " pulcherimella among Bunium
 flexuosum
 " cnicella.....
 " Douglasella ...Fleetwood, Redcar,
 Folkestone, Isle of Wight
 " WeirellaPreston, Lewisham,
 Lewes
 " ultimellamarshes, &c.
 P. gibbosella ...
 G. cinerella
 " rufescellula...marshes, &c.
 " gerrenella ...marshes, &c.
 " vilellaGravesend, Worthing,
 Folkestone
 " malvellain gardens
 " populella
 " nigra.....
 " temerellaLytham
 " lentiginosella
 " ericotella.....moors, and heaths
 " mulinella.....among furze
 " palustrella ...in fens
 " sorocullella ...among sallow
 " peliella.....Manchester, West
 Wickham
 " alacellaLeatherhead
 " terella
 " desertella.....sand-hills, on the
 coast
 " exopolitella ...Darlington, Skid-
 daw, Pentlands, &c.
 " acuminatella
 " artemisiella...coast sand-hills,
 Manchester, &c.
 " albipalpella ...
 " arundinetella Hackney, Cambs
 " senectella ...in lanes, &c.
 " mundella.....coast sands
 " similella

JULY

G. affinella
 " boreellaScotland
 " galbanella ...Rannoch
 " basaltinella ...Cambs, Addington
 " domesticella
 " rhombellaamong crab, in
 hedges, &c.
 " Lyellella.....Castle Eden, Wither-
 slack, New Forest, &c.
 " vulgellahedges, &c.
 " fugitivella ...on trunks of elm,
 and beech
 " distinctella ...on the coast, and in
 sandy places
 " maculella.....
 " fraternella ...
 " muscosella ...
 " maculifera among Cerastium
 semidecandrum
 " leucomelanella Howth, Isle of
 Man, Lizard
 " Hubnerella ...
 " marmorella ...coast sand-hills
 " instabilis ...on the coast
 " ocellatella ...Preston, Folkestone,
 Lizard; comes to sugar
 " atriplicellaSouth Shields,
 Scarboro'
 " sequacella ...
 " leucatella.....
 " albicapitella...
 " nanella.....
 " Mouffetella ...
 " dodecellaamong fir trees
 " tenebrella
 " ligulellaamong *Lotus major*,
 on railway banks, &c.
 " vorticellarailway banks, &c.
 " tenuolella.....
 " Sircomella ...railway banks, &c.
 " coronilella ...Mickleham
 " anthyllidella railway banks, and
 coast sand-hills
 " atrellaamong Hypericum
 " bifractella ...Folkestone, Mickle-
 lucidellain marshes [ham
 " lutulentella ...near Bristol, Dart-
 ford Heath, &c.
 " gemmella.....Birkenhead, Bristol,
 Manchester

IMAGOS]

- G. ericinellaheaths
 " inopella
 " subocellella ...
 " osseellaflies at dusk, among grass
 " Knaggsiella...
 " umbrosella ...
 " sangiella
 " pinguinella ...
 P. lappella
 " Metzneriella
 " carlinella
 " neuropterella Deal, Mickleham
 C. cytisella
 A. spartiella.....among furze
 " genistella.....Morecombe, Alkam, Pembury
 M. marginella ...Witherslack, Newcastle, Sanderstead
 " juniperella .. Perthshire
 N. verbascella .. near Norwich, among Verbascum pulverulentum
 Durdhamella
 S. parenthesella
 P. bicostella.....on moors, &c.
 H. Christierinella, b. Castle Eden, Darenth, Greenhithe, Seven-oaks
 D. sulphurella ...
 " olivellaDarenth, Tenterden, Lewes, &c.
 CE. flavimaculella among Angelica sylvestris
 " trisignella ...
 " stipellaPreston, Staleybridge, Lake District, Yorks, Rannoch
 " formosella ...Wanstead
 " lunarella
 " lambdella.....Charlton, Bristol
 " subochreella Cambs, Lewes, &c.
 " fuscescentella
 " pseudo-spretella common in houses
 CE. Kindermannella, in houses
 E. fenestrella ...is found all the year round, in houses, but is most numerous about this season
 B. grandipennella among furze
 " fusco-zeneella
 " senescentella

JULY

- B. fuscocuprella ...on railway banks, &c.
 " cicadella ...has occurred at Brandon
 " torquatella ...Scotland
 P. Leuwenhoekella
 Latreillella ...
 A. granitella.....
 G. Thrasonella...among rushes
 " cladiellaamong rushes, in fens, &c.
 " Haworthella
 " equitella, b. among Sedum acre
 D. ocnostomella among Echium vulgare; very local
 A. ephippella ...local
 " nitidellaamong hawthorn
 " albitriella ...among sloe
 " conjugella ...among wild mountain ash
 " semifuscella...in hedges, among sloe, and hawthorn
 " mendicella ...among sloe
 " glaucinella ...among oak
 " retinellaamong birch
 " abdominella, b. on juniper, on the coast, &c.
 " dilectella
 " Andereggia Witherslack
 " curvellaamong wild apple
 " sorbiellaamong wild mountain ash
 " pygmæella.....among sallow
 " Gedartella ...among alder, and birch
 " Brochella.....among alder, and birch
 " aurulentella Sanderstead, Mickleham, Tenterden
 C. farinatella ...among Scotch fir
 Gysselinella...Rannoch
 O. pinariella, z. among Scotch fir
 Z. saxifragaBraemar
 G. stigmatella ...among willow, &c.
 " syringella.....in gardens, among lilac
 " omissella, e.
 " auroguttella...
 " Kollarieilla ...
 C. Brogniartella

IMAGOS]

JULY

- O. torquilella ...among sloe
 " Loganella
 C. Fabriciella ...on railway banks
 " deauratella ...
 " alcyonipennella among Centaurea
 nigra, in sheltered places
 " Frischella ...Portland, Isle of
 Wight, and Dorset coast
 " Wockeella ...
 " ochreella
 " salicornella ...Fleetwood
 " lixellaon the coast, among
 grass
 " vibicella
 " conspicuella
 " pyrrhulipennella
 " albostella ...among furze
 " vulnerariella
 " anatipennella
 " palliatella ...
 " ibipennella ...
 " currucipennella among sallow
 " niveicostella...
 " discordella ..among Lotus major
 " genistæcolella among Genista
 anglica
 " saturatella ...among broom
 " onosmella ...among Echium vul-
 gare
 " inflatellaamong Silene inflata
 " therinella.....among thistles
 " troglodytella among Eupatorium
 cannabinum
 " lineolellaon Ballota nigra
 " murinipennella among Luzula
 sylvatica
 " cæspitiella...among rushes
 " annulatella (Tengstromella) among
 Chenopodium
 " salinella
 " apicella (cacuminatella) fens, and
 marshes
 " argentulella..... among Achillea
 millefolium
 " virgaurella ...
 " hemerobiella
 " juncicolella ...among heath
 " laricellaamong larch
 " albitarsella ... among Glechoma
 hederacea
- C. nigricella.....among hawthorn
 " fuscedinella ...
 " orbitella
 " vitisella
 " viminetella ...among sallow
 " solitariella among Stellaria
 holostea
 " lutipennella...among oak
 " artemisicolella among Artemisia
 " badiipennella among hawthorn
 " limosipennella
 " chalcogrammella among Ceras-
 tium arvense
 " melilotella .. railway banks, &c.
 " artemisiella ...
 S. pedella.....near Brandon, Suffolk
 C. Druriella
 " orichalcella, b.
 " Lienigiella ...in fens, among reed
 B. præangustella on poplars, and
 sallows
 " pinicolella ...among Scotch fir
 O. v. flavella ...in wine vaults, and
 cellars
 C. insecurella, e. at Stoat's Nest, near
 Croydon
 " Illigerella.....
 " chærophyllella
 L. paludicolella
 " lacteella
 " miscella
 " conturbatella
 " Stephensella
 " ochraceella ...among Epilobium
 " phragmitella among Typha lati-
 folia
 " atra (Hellerella) among hawthorn
 " rhamniella ...among buckthorn
 C. Linneella.....
 " bimaculella ...Black Park, and
 Leith Hill
 H. Roesella.....formerly near London
 A. profugella ...Witherslack, Dar-
 lington, and Kemsing, Kent
 " æratella
 E. Gleichenella
 " magnificella...
 " apicipunctella
 " luticomella ...
 " flavicomella...

IMAGOS]

JULY

- | | |
|--|---|
| E. Kilmunella ...moors, marshes, and bogs, among coarse grass | N. centifoliella... |
| " stabilella | T. immundella... |
| " Gregsonella... | B. quadrimaculella |
| " nigrella | A. Bennetii... ...Sheppey, and the Essex coast |
| " perplexella ... | P. rhododactylus among rose Bertrami, b. |
| " Paludum | " ochroductylus among tansy |
| " humiliella ... | " isodactylus ...in marshes, among Senecio aquaticus |
| " suboscurella | " Zetterstedtii ... Darlington, Scarboro', Lynmouth |
| " zonariella..... | " acanthodactylus on heaths |
| " cingilella | " lœtus .....on the "Breck" sand of Norfolk and Suffolk |
| " adscitella ... | " punctidactylus |
| " cerussella..... among reeds, in marshes, &c. | " parvidactylus |
| " rhynchospora | " hieracii..... |
| " eleochariella | " pilosellæ .....Cambs, Mickleham |
| " biatomella ... | " phæodactylus Cambs, Mickleham |
| " serricornella | " serotinus |
| " triatomella ...in chalk pits | " plagiодactylus among Scabiosa columbaria |
| " dispunctella... | " zophodactylus |
| " collitella | " lithodactylus among Inula dysenterica |
| " pollinariella | " Liengianus ... among Artemisia vulgaris ; Ventnor, Deal |
| L. corylella .....among nut spinicolella ...among sloe | " tephradactylus |
| " spinolella..... | " osteodactylus Witherslack, Scarboro' |
| " quercifoliella among oak | " microdactylus among Eupatorium canabinum |
| " scopariella ...among broom | " Paludum |
| " ulicolella .....among furze | " brachydactylus Carlisle, Norfolk |
| " alnifoliella ...among alder | " galactodactylus among burdock |
| " trifasciella ...among honeysuckle | " spilodactylus Isle of Wight |
| P. suffusella.....among sallow | " baliodactylus |
| C. scitella..... | " tetradactylus among thyme |
| " Wallesella ...among Genista | " pentadactylus among Convolvulus sepium, and C. arvensis |
| O. salaciella.....among sorrel | " dichrodactylus |
| " crepusculella | |
| " spatulella..... | |
| B. maritimella ...among Aster triplo-franguella ...among buckthorn | |
| N. quinquella ... | |
| " poteriella..... | |
| " angulifasciella | |

AUGUST

OVA]

Those who wish for eggs of Butterflies, for purposes of preservation, &c., will find many species obtainable this month, while if the opportunity, now presented, be lost, very few will be found in succeeding months of the year. Where the food-plant of the species sought for is abundant, and the Imago is known to frequent the locality, much time may be sometimes saved by collecting conspicuous sprays of the plant into a bag, and looking for the eggs afterwards, at home, with the aid of a magnifying glass.

- | | |
|--|--|
| L. sinapis, s.on Vicia, cracca, and
Orobus tuberosus; long, stand-
ing on end, curved, yellow-white | T. prunion sloe twigs |
| P. Brassicæon cabbage, &c.; in
groups ; conical, ridged, yellow | " betulaeto Mar., on twigs of
sloe |
| " rapæon Cruciferæ, mignon-
nette, and other garden plants | L. Ægonon Ornithopus per-
pusillus ; white. Do not hatch
until about March |
| " napion Cruciferæ | " agestison Erodium circu-
larium |
| " Daphidiceon wild mignonette,
and weld | " Alexison Lotus cornicu-
latus |
| C. Edusa, s.on white clover,
lucerne, &c. | " Corydonon Hippocrepis co-
mose ; on chalk, and sandstone
downs, and hills |
| A. Aglaiaon dog, and sweet
violet, and wild heartsease | " argioluson ivy ; on the fl.
stalks ; white |
| " Niobeon dog, and sweet
violet | H. commato Mar., on trefoil,
and other Leguminosæ |
| " adippeon dog, and sweet
violet | L. salicison poplar, willow,
&c. ; covered with white
down |
| " Latonaon violet, and hearts-
ease | " disparon the trunks of
sloe, hawthorn, and various
fruit trees ; in a conical heap,
covered with down |
| E. Medea..... on moorland poa,
and other grasses ; large, nearly
globular, at first greenish-yellow,
afterwards pinkish-grey, speck-
led with claret-brown | " monachato Mar., on oak,
beech, fir, birch, apple, &c. |
| S. Semele, b.on Triticum repens | B. neustriaon hawthorn, sloe,
fruit trees ; in batches, round
twigs, and branches |
| T. quercus .....on oak twigs | |
| " w-albumon wytch elm, also
elm ; on the twigs ; whitish | |

OVA]

AUGUST

- B. castrensis.....on *Artemisia maritima*, *Daucus maritimus*, &c.
- E. vespertaria ...on nut
" apicariato April, on poplar,
willow, sallow
- C. elinguariato Feb., on oak,
honeysuckle, hawthorn, sloe ;
also heath, bilberry, &c. ;
brick-shaped, large, purplish-slate colour
- F. pinetariaon bilberry
- S. sacraariaon dock, and chamomile ; at first pale greenish-yellow, afterwards bright red
- A. citraria.....on wild carrot, trefoil; &c. ; generally near the coast
- L. olivata, e.on *Gallium Mollugo* ;
rather small, oval, plump ; at first pale straw, then red, and at last a pale livid hue
- E. unifasciataon *Odontites rubra*
- E. subciliatato April, on maple ; at footstalk of leaf
- M. rubiginata ...on alder ; large
" montanata ...on primrose
- P. vitalbataon *Clematis vitalba*
- S. vetulataon buckthorn
- C. russataon strawberry, birch,
hawthorn, sallow, &c. ; singly,
large, flattish, dingy yellow
" immanata.....probably on alder,
and other trees, and strawberry, bilberry, &c. ; large, flat, yellow
- " prunataon currant, gooseberry, sloe, &c. ; on the bark, large
- " testatato April, on heath, birch, sallow, poplar, &c. ; singly, large
- " populataon bilberry, whortleberry, poplar ; globular, large, yellow
- " fulvataon dog rose ; rose-pink, large
- " pyraliatato Mar., on *Galium*, and hawthorn ; large
- " dotatato April, on black, and red currant ; large
- E. lineolataon *Galium verum*, on the coast ; in clusters, oval ; standing on the smaller end ; yellow, changing to pale brown
- T. chærophyllata on *Anthriscus sylvestris*, and *Bunium flexuosum*
- X. lithoxylea ...among grass ; small, globular, pale yellow
- P. captiuncula ...on —? At Dartington. Globular, pale straw colour
- C. Morpheus ...on dock, teasle, &c.
" alsineson chickweed, &c.
" cubicularis ...on grasses, pulse, and grain
- A. Putaon dandelion, lettuce, carrot, &c.
- N. depuncta ...on sorrel, and other low plants ; globular, slightly flattened above, and ribbed, pale straw colour, in the centre a brown spot, and encircled at some distance with brown
" xanthographa on plantain, &c.
- C. xerampelina, e. on ash ; probably in the chinks of the twigs, and the buds, &c. ; round, smooth, dirty-white
- T. subtusa.....to Mar., on poplar ; upon the twigs
- C. trapezinaon oak, and many other trees
- P. chito Mar., on dock, hawthorn, sallow, and probably lettuce, sow thistle, tea tree, &c. ; purplish-brown
" xanthomista, e. on *Plantago maritima*, in exposed places, on the coast (notably the Isle of Man) ; and also, probably, on campion, violet, harebell, &c.
- E. viminalison sallow
- M. typicaon dock, low plants, &c. ; in clusters upon the leaves
- C. sponsaon oak ; upon the twigs
- H. proboscidalis on nettle ; rather large, pale yellow
- C. pinetellus ...amongst moss, on dry banks ; oblong, oval, whitish

LARVÆ]

AUGUST

We now begin to find many of our larvæ commencing a life of feeding, which, on and off, will not terminate until May, or June, of the following year. These deliberate eaters appear in the lists with the contraction "h.", signifying that they hibernate. Most of these are now quite small, and few will repay the trouble and risk of keeping all the winter; for even with the food-plant in a growing state, large numbers of hibernating larvæ always die in confinement; they are, therefore, generally better left until the spring, unless special reasons exist for trying to rear them. Sometimes part of a brood, in confinement, will complete its change to the pupa, or even the perfect state, in the autumn, while the other part will not do so until the spring.

- | | |
|---|--|
| P. Machaon..... <i>Peucedanum palustre</i> , and other Umbelliferæ; in fens | C. Davus, h..... <i>Rhynchospora alba</i> |
| P. crataegi, h. ....hawthorn, sloe, and orchard trees | " <i>Pamphilus</i> ...grasses |
| A. Paphia, h. ....dog, and sweet violet; in a slight web, on, or near the ground | P. Phlœas.....dock, ragwort, sorrel |
| " Aglaia, h. ....dog, and sweet violet, and wild heartsease | L. Boëtica <i>Collutea arborescens</i> |
| " Niobe, h. ....dog, and sweet violet, and wild heartsease | " <i>Alexis</i> , 2.....rest harrow, clover, trefoil, &c. |
| " adippe, h. ....dog, and sweet violet | " <i>Adonis</i> , b., 2. <i>Hippocrepis comosa</i> , &c. |
| " Latona.....dog, and sweet violet, and wild heartsease | N. Lucina.....primrose, and cowslip; eats small holes in the leaves |
| M. Artemis, h....scabious, plantain, woodbine; will also eat fox-glove, wood sage, &c. | H. linea, h. ....grasses |
| " Athalia, h. ....narrow-leaved plantain, foxglove, wild germander | S. ocellatus .....willow, sallow, poplar, apple; will also eat sloe, peach, almond, &c. |
| V. c.-album .....nettle, elm, hop, sloe, currant | " <i>populi</i> .....poplar, sallow, willow; will also eat birch, laurel, laurustinus |
| " urticae .....nettle | " <i>tiliae</i> .....elm, lime, beech |
| L. sibylla, h. ....honeysuckle | D. euphorbiae ... <i>Euphorbia paralias</i> , and E. cyparissias. Feeds exposed |
| A. Iris, h. ....sallow, poplar | " galii <i>Galium verum</i> , and G. elatum. In their native haunts, on the sea shore, they feed from the beginning of this month, till the end of Oct. They seem to prefer the scrubby plants; are nearly always found in pairs; and may be traced from the frass, on the sand-hills. They vary very much in appearance |
| A. Galatea, h. ....timothy, and other grasses | C. celorio <i>Galium</i> , vine |
| E. Epiphron, h. <i>Poa annua</i> , <i>Festuca ovina</i> , and small rushes; in mountain bogs | " porcellus <i>Galium</i> ; also willow herb, and vine |
| S. Semele, h. ....quakinggrass, couch grass, &c.; on dry hill-sides, and on sand-hills along the sea-shore; feeds by night; hides at the r., and under clods by day | " elpenor..... <i>Galium palustre</i> , G. uliginosum, and other <i>Galiums</i> ; also willow herb, fuschia, vine |
| " Ianira, h. ....meadow grasses [&c.] | |
| " Tithonus, h. annual meadow grass, hyperanthus, h. annual meadow, millet, and other grasses | |

LARVÆ]**AUGUST**

- M. stellatarum.....*Galium Mollugo*, growing on old walls, exposed to the sun
" fuciformis.....*Lychnis*, scabious, honeysuckle, *Galium*, &c.
" bombyliformis *Scabiosa*
S. muscæformis in stems of *Statice armeria*
Z. æsculi, hin the wood of ash, elm, pear, horse chesnut ; s. hawthorn, lime, box. The larvæ are generally in the highest branches of the tallest trees
H. hectus, h.in r. of brake fern
" *lupulinus*, h. in r. of dead nettles, &c.
" *velleda*, h.in r. of brake fern
" *humuli*, h.in r. of various plants, including *Humulus* (hop)
L. assellusoak, beech, poplar, &c.
Z. nubigena, h. thyme
" *mellioli*, h.*Lotus corniculatus*, vetches, &c.; partial to chalky soils
" *trifolii*, h.trefoil, vetch
" *loniceræ*, h.clover, grasses
" *filipendulae*, h. *Lotus corniculatus*, &c.
L. sericea, h.lichens
C. miniata, h. lichen, on oak (*Lichen caninus*) ; also withered sallow, oak, alder
L. mesomella, h. lichens ; will also eat sallow, and heath
" *lurideola*, h....lichens
" *complana*, h. lichens, on sloe, and fir
" *griseola*, h.lichens, on poplar ; *Lichen caninus* the supposed proper food ; will also eat withered sallow, &c.
" *stramineola* (var.) h. lichens, on sloe, oak, sallow
L. rubricollis ...lichens, on larch, &c. ; may be beaten from the tree
E. cibrum, h.heath, bilberry
C. dominula, h. *Cynoglossum officinale*, &c. ; on hilly places
- C. plantaginis, h. violets, plantain, &c.
" *caia*, h.various plants, and bushes
" *villica*, h.chickweed, &c.
A. fuliginosa, z. dock, nettle, plantain, grasses, &c.
" *mendica*sloe, plantain, &c.
" *lubricepeda* ...nettle, plantain, &c.
" *menthrasti* ...nettle, and various plants, and bushes
" *urticae*willow herb, and low plants ; in damp places
L. *salicis*, h.poplar, willow, oak, &c.
O. pudibunda ...hop, beech, hawthorn, nut, oak, &c.
" *cenoosa*reed, and carex
" *gonostigma*, h. oak, nut, hawthorn, sloe, bramble, willow, sallow, beech, &c. In confinement this species may, by careful feeding on willow, or sallow, be often caused to pupate in the autumn, and even emerge
D. *coryli*beech, nut, birch, alder, oak, willow, ash, &c.
L. *ilicifolia*whortleberry, sallow
S. *carpini*sloe, bramble, heath, apple, sallow, hawthorn, meadow sweet, &c. ; generally gregarious ; may be s. found in hedges
E. *advenaria* ...dogwood ; will also eat wild rose [aspen
E. *dolobraria* ...oak, beech, birch,
S. *lunaria*sloe, oak, nut, elm, ash, hawthorn
O. *bidentata*.....oak, sallow, nut, ivy, ash, sloe, &c.
E. *alnaria*.....alder, birch, sallow, beech, &c.
" *tilaria*oak, sallow, birch, alder, &c.
" *angularia*oak, birch, beech, &c.
A. *betularia*oak, elm, hawthorn, birch, beech, alder, mountain ash, rose, ivy

LARVÆ]**AUGUST**

- H. abruptaria s. lilac, rose, privet
 B. consortaria ...oak
 T. consonaria ...beech, oak, birch
 " crepuscularia larch, willow, poplar,
 elm, birch, alder, &c.
 " extersaria, e...birch, beech, oak
 " punctulata ...birch, alder
 N. viridatahawthorn, bramble
 P. baiularia, h....oak. A second
 brood will s. appear in confine-
 E. punctaria.....oak [ment
 " trilinearia..... beech ; generally
 dwarf, and pollard trees
 " omicronaria...maple ; s. beech
 " orbicularia....sallow, alder
 " pendularia ...birch
 H. auroraria, h. plantain
 A. luteata.....maple
 " sylvata.....alder
 " Blomeraria ...wytch elm, in, or
 near hilly woods ; remains on
 the under-side of the leaf
 V. cambricaria...mountain ash
 A. rubricata, h. —? will eat knot-
 grass, Lotus corniculatus, Medi-
 cago lupulina, Thalictrum
 minus, and the smaller tri-
 folium
 " scutulata, h. Anthriscus sylvestris,
 fl., and dandelion, withered ;
 will also eat knotgrass
 " bisetata, h.dandelion ; will also
 eat knotgrass, and withered
 bramble
 " trigeminata, h. some low plant ?
 will eat knotgrass
 " contiguaria, h. Empetrum ni-
 grum ; will also eat hawthorn
 buds, and knotgrass
 " rusticata, h. hawthorn ; will also
 eat ivy, lilac, and withered
 bramble, and knotgrass ; very
 local
 " interjectaria, h. dandelion, scarlet
 pimpernel (withered)
 " osseata, h.dandelion, &c.
 " holosericata, h. sun cistus, with-
 ered ; will also eat knotgrass
 " circellata—? will eat knot-
 grass
- A. ornata, s., h. thyme, marjoram ;
 will eat mint
 " promutata, h. Achillea millefo-
 lium, Artemisia vulgaris, Poten-
 tilla, reptans
 " straminata, h, —? will eat knot-
 grass
 " immutata, h. some marsh plant ;
 will also eat knotgrass
 " remutata, h. low plants ? will
 eat knotgrass [knotgrass
 " fumata, h.heath ; will also eat
 " strigilata, h. Clematis vitalba,
 Stachys sylvatica, &c.
 " emutaria, h...Triticum repens ;
 will also eat Medicago lupulina,
 Lotus corniculatus, Chenopo-
 dium, mint, and knotgrass
 " inornatalow plants ; also, it
 is said, poplar, and willow
 " degeneraria, h. —? will eat
 knotgrass, bramble, Cerastium,
 Veronica
 " emarginata ...convolvulus, Galium
 C. pusaria..... oak, nut, alder,
 birch, sallow, &c.
 C. temeratasloe, & wild cherry,
 and buckthorn ?
 " taminatawild cherry, sallow ?
 buckthorn ?
 N. pulveraria ...sallow, nut, privet
 S. belgeria, h.heath
 F. atomariaCentaurea, trefoils,
 &c.
 " piniaria Scotch fir, and
 larch ; on the high branches
 " conspicuata ...broom
 M. euphorbiata...Euphorbia cypar-
 issias
 L. purpuraria?...dock, Polygonum
 A. strigillaria, h. heath, broom
 L. adustataspindle ; rests along
 the stems
 L. pectinaria alder, Galium
 Mollugo, and G. sexatile
 E. affinitariaSilene, and Lychnis,
 seeds
 " alchemillata...Galeopsis, Silene,
 Lychnis
 " albulayellow rattle, seeds

LARVÆ]

AUGUST

- E. tæniata?has been obtained by beating holly
- E. linariatain fl., and seed-vessels of yellow toadflax
- " centaureata ...fl., and seeds of ragwort, golden rod, Angelica, yarrow, Eupatorium cannabinum, Pimpinellæ, &c.
 - " succenturiata, e. Achillea millefolium, Artemisia, and Valerian officinalis, seeds
 - " subumbrata...Gentiana, Campanula, and other fl.; in, and near beech woods
 - " plumbeolata Melanpyrum pratense, fl.
 - " isogrammata Clematis vitalba, fl.-buds
 - " castigatagolden rod, heath, nettle, Angelica sylvestris, &c.
 - " virgaureatagolden rod, fl.
 - " fraxinataash; will eat laurus-tinus, fl.
 - " innotata (?) e. Artemisia campestris, at Wallasy
 - " nanataheath, fl.
 - " subnotata.....Atriplex, and Chenopodium, fl., and seeds
 - " campanulata seed capsules of Campanula trachelium, and other Campanulæ
 - " minutataheath, fl., and scabious; s. a cannibal
 - " togata, e.spruce, in the buds, and shoots; and, it is said, on the seeds of the Scotch fir
 - " coronatafl. of Clematis vitalba, wormwood, bramble, Eupatorium cannabinum, golden rod, wild angelica, &c.
- C. sparsataLysimachia vulgaris, fl., and leaves
- L. hexapterata...sallow, poplar
- " viretataprivet, and Actaea spicata
 - " lobulatahoneysuckle, sallow, willow
- T. juniperata ...juniper
- Y. impluviata ...alder, sallow; in curled-up leaves
- M. ocellataGalium
- " albicillata.....bramble, raspberry
 - M. hastatabirch, Myrica gale; within spun-up leaves
 - " tristataGalium Mollugo
 - " procerrata ...Clematis vitalba
 - " tersata, e. ...Clematis vitalba
 - " unangulata ...chickweed
- A. sinuata.....Galium verum
- " rubridataGalium
 - C. unidentaria, b. Galium; will also eat Asperula odorata
 - " quadrifasciaria ...hawthorn, white dead nettle, knapweed, and low plants
- C. fluviataPolygonum persicaria; will also eat groundsel, &c.
- P. lignata, b. ...Galium palustre, &c.
- C. psittacataoak, lime, apple, rose; probably also birch, hawthorn, sallow
- " miataoak, alder, birch, poplar, willow
 - " piciatachickweed; rests along the stems
 - " corylatasloe, lime, nut
 - " sagittataThalictrum flavum, seeds, and withered leaves; in confinement will eat other species of Thalictrum
- P. comitataChenopodium
- E. palumbaria, h. broom
- C. obliquaria ...broom
- P. lacertulabirch; between united leaves
- D. bicuspisalder, beech, birch
- " furcula.....sallow, willow, poplar; often rests on decayed leaves
 - " bifidapoplars
 - " vinula, b.willows, sallow, poplars
- S. fagibeech, oak, birch, nut
- P. bucephala ...elm, oak, lime, beech, sallow, nut, &c.
- C. curtulapoplars, sallow; webbed in the leaves
- G. crenatapoplar
- N. cucullina ...maple, sycamore

LARVÆ]

AUGUST

- N. dromedarius, e. birch, alder, nut
 " tritophusbirch, poplars
 " trepida.....oak ; tightly grips
 its food
 " Chaoniaoak
 " Dodoneaoak, birch
 T. derasabramble, hawthorn
 " batisbramble, raspberry
 C. duplarisbirch ; between
 united leaves
 " orpoplars ; between
 leaves
 " ocularispoplars
 D. Orionoak, birch
 A. tridens.....hawthorn, sloe, rose,
 willow, sallow, mountain ash,
 &c.
 " psi.....hawthorn, poplar,
 pear, elm, lime, &c.
 " leporinabirch, poplar, alder,
 sallow
 " acerissycamore, horse
 chestnut, maple, birch ; s. oak ;
 often on the loftiest branches ;
 clings closely to the leaf
 " megacephala poplar
 " strigosahawthorn; especially
 in chalky districts
 " alnihawthorn, alder,
 willow, oak, lime, rose, elm,
 nut, beech, the chestnuts, birch,
 sycamore, poplar, sallow, bramble.
 Should be looked for, as
 it is probably difficult to dis-
 lodge, by beating. Has been
 found at rest on a leaf, palings,
 &c.
 " ligustrum.....ash, privet ; seems
 to prefer shaded trees
 " runcicis.....bramble, plantain,
 knotgrass, and other low plants
 " menyanthidis Menyanthes trifoliata,
 heath, bramble, sallow,
 sweet gale
 " myricæ.....Myrica gale, sallow,
 birch, heath? thistle?
 S. venosaGlyceria aquatica
 L. obsoletacommon reed ; con-
 cealed, by day, in hollow
 stems
- L. littoralis, h....Ammophila arun-
 dinacea, on the coast ; burrows
 seven, or eight inches in the
 sand. Will also eat Carex
 " comma.....Dactylis glomerata,
 and other grass ; also sorrel
 " phragmitidis, h. common reed ;
 in the young stems
 N. typhaein the stems of
 Typha latifolia
 G. flavago.....inside stems of
 Lappa, thistles, elder, foxglove,
 &c., feeding on the pith
 A. putrislow plants [&c.
 X. hepatica, h. grasses, chickweed,
 D. pinastridock, sorrel, &c.
 X. conspicillaris Lotus corniculatus,
 and other low plants
 L. exiguaplantain
 N. saponaria ...Silene, Lychnis, and
 other low plants
 M. albicolon.....Atriplex, and Chenop-
 odium ; on coast sands, &c. ;
 also lettuce, in gardens
 " brassicæ.....cabbage, dock, Cheno-
 podium, chrysanthemum, &c.
 " persicariæ ... Polygonum persi-
 caria, and other low plants ;
 also elder
 A. basilinea, h. growing wheat ; on
 the immature grains ; after hi-
 bernation, in spring, on various
 plants
 " gemina, h. ...grasses
 H. palustrisplantain, and other
 low plants
 A. sauciaplantain, dock, and
 other low plants
 " segetum, h.in r. of turnips, &c.
 " lunigera—? will eat knot-
 grass, &c.
 " corticea, h. ...Chenopodium, &c.
 " ripæCynoglossum offici-
 nale ; on the coast ; burrows
 7 in. or 8 in. in the sand
 " porphyrea, h. heath
 " pyrophila.....grasses, heath, and
 other low plants
 T. ianthina, h....primula, and other
 low plants ; also broom, &c.

LARVÆ]**AUGUST**

- T. Orbona, h. ...low plants, and broom; when young, on sallow buds
 " pronuba, h. ...dock, &c.
 N. augur, h. ... low plants, hawthorn, sallow, &c.
 " festiva, h. ...violet, sallow, fox-glove, &c.
 " confusa, h. ...various low plants, including *Silene acaulis*
 T. gothicasallow, hawthorn, oak, &c.; also dock, nettle, laurel, broom, lilac, &c.
 D. irregularis ...*Echium vulgare*, *Silene otites*
 " carpophaga ...*Lychnis*, and *Silene inflata*, the young seeds
 " capsicola ...*Lychnis*, and *Silene seeds* [inflata], seeds
 " cucubali*Lychnis*, and *Silene conspersa*.....*Lychnis flos cuculi*, and *Silene inflata*, seeds
 " caesia, b.*Silene maritima*, S. inflata
 H. dysodeafl., and seed-heads of *Sonchus*, and *Lactuca* (lettuce, garden, and wild)
 " serena*Sonchus*, and wild lettuce
 E. luciparia brake fern, and *Polypodium felix-mas*; also sallow, nettle, primrose, plantain, dandelion, &c.
 A. herbida, h. ...dock, and other low plants
 " advena, h. ...lettuce, knotgrass, and various plants
 H. adusta, h. hawthorn, and sallow, when young; afterwards, low plants
 " glaucasallow, birch, bilberry, heath; will eat lettuce, in confinement
 " peregrina.....*Chenopodium*, and *Salsola kali*
 " chenopodii ...*Chenopodium*
 " atriplicis*Chenopodium*, dock, *Polygonum persicaria*, &c.
 " suasa plantain, lettuce, knotgrass, &c.
- H. oleraceacabbage, nettle, dock, cabbage, &c.
 " pisibrake fern, broom, scabious, grass, sedge, sallow, birch, mountain ash, &c.
 " thalassinihoneysuckle, sallow, broom, knotgrass, &c.
 " contiguabirch, oak, nut, &c.
 " genistæbroom, chickweed, *Silene*, *Polygonum*, &c.
 " rectilinea, h. sallow, bramble, bilberry
 X. lithorizahoneysuckle
 C. perspicillaris *Hypericum*
 C. lychnitisseeds of *Verbascum lychnitis*, and *V. nigrum*
 " asterisgolden rod, *Tripolium vulgare*, and *China aster*
 " gnaphaliigolden rod
 " absynthii.....*Artemisia absinthium*
 " chamomillæ, s. chamomile, fl.; also *Pyrethrum inodorum*, and *P. maritimum*
 " umbratica ... *Sonchus*, lettuce, &c.; hides by day under leaves, near the ground; feeds on the upper leaves, and fl. at night
 H. marginata ...rest harrow, preferring the fl.; also *Arenaria*, and *Hyoscamus*; knotgrass, in confinement
 " peltigera rest harrow, henbane, and several coast plants, preferring the fl.
 " dipsacea *Linaria*, fl.; also *Silene otites*, seeds; the pupa has been found among melilot
 A. cordigera ...*Vaccinium myrtilli*, s. h. heath
 A. sulphuralis ...small *Convolvulus*
 E. venustula.....*Tomentilla reptans*, fl.
 " fuscula.....lavender grass (*Molinia cærulea*). May be found feeding at night, about half way up the blades of grass
 B. argentula.....grasses
 H. unca*Carex*
 B. parthenias ...birch
 A. urticae, e. ...nettle

LARVÆ]

AUGUST

- A. triplasia nettle, hop
 P. chrysitis, h. *Lappa*, thistle, nettle, dead nettle, &c.
 " festucæ, b. *Carex*, reeds, and grasses ; near the sea
 " gamma nettle, hop, and most low plants
 C. alchymista ... oak
 P. ænea... *Polygala vulgaris*
 H. crassalis heath
 H. costæstrigalis thyme
 H. derivalis, h. sallow, bramble
 " tarsipennalis, h. wild raspberry ? will eat knotgrass, and sallow
 " grisealis *Sisymbrium Sophia*, oak, &c.
 " cribralis, h....sallow ; afterwards, on *Carex*, and *Luzula*
 E. cingulalis..... *Salvia pratensis*, under the leaves
 B. lancealis *Eupatorium cannabinum*, *Senecio*, *Sium latifolium*, &c.
 " fuscalis..... yellow rattle, seeds
 " terrealis, h....golden rod, fl., &c.
 " asinalis, b. madder, fl., and young seeds
 E. catalaunalis... *Linaria spuria*
 P. margaritalis... wild mustard, seeds ; live under a web, and change in spring
 S. palealis wild carrot, and *Peucedanum* ; in a web, within a fl.-head of the umbels
 L. pulveralis ... *Mentha aquatica*
 S. coarctalis, b. moss
 N. angustella ... fruit of spindle
 G. canella, e. *Salsola kali* ; mines the stems, when young ; afterwards feeds on the unripe seeds
 R. formosella ... elm, birch
 M. sociella wax, in nest of humble bee
 H. prasinana ... oak, &c.
 " clorana..... willow, buds
 A. prodromana *Potentilla anserina*, and most low plants
 P. hastiana dwarf sallows
 " tristana..... guelder rose [ash ?
 A. Conwayana... fruit of privet, nut ?
- P. Lecheana..... sallow, willow, oak, honeysuckle, &c.
 P. prælongana ... birch
 " sauciana (?) ... *Vaccinium*.
 S. euphorbiana... *Euphorbia paralias*, heads
 M. rubiginosana ? Scotch fir
 consequana ... *Euphorbia paralias*
 E. fractifasciana Scabious, heads
 P. biarcuana..... sallow
 " myrtillana ... *Vaccinium lundana*, h. trefoils, and vetches
 " derasana *Rhamnus frangula*
 " diminutana ... sallows
 " Mitterpacheriana elm, oak
 G. nigromaculana ragwort
 " campoliliana in sallow leaves
 " obtusana nut
 P. crenana sallows, willows
 E. trigeminata ... ragwort
 S. rufillana umbels of wild carrot
 C. nemorivagana ? Scotch fir
 " vacciniana ... *Vaccinium*, and *Berberis*
 R. duplana ?..... Scotch fir
 C. pomonana ... in apples, and pears
 O. funebrana ... in plums
 E. pisana in pea pods, and vetches
 S. Weirana beech
 " leguminana ? alder
 " orobana in pods of *Vicia cracca*, *V. sylvatica*, *Orobus tuberosus*, and *Genista tinctoria*
 C. ulicetana seeds of *furze cana* thistle heads
 " Hohenwarthiana knapweed, and thistle
 " aspidiscana ... golden rod
 X. Fabriciana ... nettle
 " pariana..... apple, hawthorn
 E. hybridellana thistle, and ragwort, seeds
 " vectisana *Plantago maritima*
 " ciliana seeds of cowslip
 A. cnicana thistle stems
 " Mussehliana ? seeds of *Linum catharticum*
 " maritimana ... in stems, and r. of *Eryngium maritimum*

LARVÆ]

AUGUST

- E. Steinkellneriella hawthorn, mountain ash, sloe, &c. ; between turned-down leaves
- P. calvella (fusca) h. in a case, on bramble ; 2 years feeding up
- T. fuscipunctella on all kinds of waste substances
- M. purpurella ? birch
- " salopiella ? ...birch
- " semipurpurella ? birch
- " unimaculella ? birch
- " sparmannella ? birch
- " subpurpurella ? on various plants, in a flat case, of pieces of dried leaves
- A. fibulellain a flat case, on leaves of *Veronica chamaedrys*
- N. scabiosellus, h. in seed-heads of *Scabiosa arvensis*; in the autumn, in its case, on various low plants
- " capriacella, h. in seed-heads of teaize, and *Scabiosa succisa*
- A. funerella?
- E. lobellaunder turned-down sloe leaves
- D. pallorella, b. in leaves of *Centaurea scabiosa*
- G. proximella ...in birch leaves
- " scriptellamaple
- " aethiopella ? ...among burnt heath
- " costella..... *Solanum dulcamara*
- " triparellaoak, between united leaves
- " paupella*Inula dysenterica*, in fl-heads
- " intaminatella *Lotus corniculatus*
- M. ustulella, h.nut, birch, lime, maple, hornbeam, &c.
- B. chenopodiella...*Chenopodium*, and *Atriplex*
- " torquafella ...birch, elm
- T. sericellanut
- " resplendella...alder
- A. conjugella ...mountain ash, in the berries
- G. stigmatellasallow, willow, poplar
- G. hemidactylella maple, and sycamore
- " falconipennella alder
- " phasianipennella *Polygonum hydropiper*, and sorrel
- " imperialella...*Sympytum officinale*
- C. Brogniartella oak
- " cuculipennella ash, privet
- O. avellanella ...nut
- " guttella.....in turned-down leaves of apple
- C. albicostella ...on pods of furze
- " artemisicolella, h. fl. of *Artemisia vulgaris*, and *A. campestris*
- " inflatella*Silene inflata*, seeds
- " siccifoliella .. hawthorn, apple, birch
- " melilotella ...melilot, seeds
- " Wilkinsonella birch
- B. somnulentella convolvulus
- C. Druriellahop
- " orichalcella ...in leaves of *Festuca arundinacea*
- L. subbistrigella in seed-pods of *Epilobium montanum*
- E. serricornella *Carex*
- A. terminetella *Circæa lutetiana*
- A. Treitschiella dogwood
- L. padifoliella ...sloe, birch, &c.
- P. suffusellapoplars
- " salignella ..willows
- C. scitellahawthorn, apple, &c.
- " lotella*Lotus major*
- " lathyrifoliella in leaves of *Lathyrus sylvestris*
- " orobiella*Orobus tuberosus*
- B. cedarilla ...alder
- " cratægifoliella hawthorn
- " Demaryella ...birch
- " Boyerella ...elm
- " frangulella ...buckthorn
- " hippocastanella lime
- N. minusculella pear
- P. isodactylus ...in shoots, and stems of *Senecio aquaticus*, &c.
- " pterodactylus convolvulus
- " monodactylus*Convolvulus arvensis*, and *Calystegia sepium*, &c.

PUPÆ]

AUGUST

Although pupæ, of some kind or other, may be found at any period of the year, the middle of the present month is the best time to commence the systematic work of digging, and otherwise searching, for species which have arrived at this stage. From about that time this work should be followed, until the winter, as a regular part of the Collector's operations, as it is one of the best means of securing many species otherwise difficult to be got. The insects thus obtained come to hand in the finest condition, and many curious varieties often appear. Although the digging at trees has been long recommended, some kinds are only to be found at the roots of the low plants upon which they have been feeding, or in their immediate neighbourhood. Wherever there is a good mass of the food-plant of a desiderated species, the pupa should be sought, or dug for, near, or among the roots, of course, avoiding the destruction of the plant, if it should be rare or local.

- P. Machaonto April, on stems of *Peucedanum palustre*; in fens
- A. cardamines ...on stems of grass, &c.
- V. urticæamong nettle " *cardui*on, or near thistles
- L. Adonis, b.sub. at, or among *Hippocrepis comosa*
- O. antiqua ...in a web, on palings, &c.
- E. lanestriscocoon, on the ground, near hawthorn, sloe, &c.
- P. populito Oct., spun up, against oak, poplar, &c.; near, or just beneath, the ground
- E. versicolora ...to March, spun up, at birch
- S. lunariato April, at sloe, oak, nut, &c.
- E. alniariaunder moss, on tree trunks, or between leaves
- " *tiliaria*, b.spun up, between leaves, or grass, at r. of oak, birch, &c.
- " *fuscantaria*, b. suspended, within a curled-up leaf
- H. pennariasub., at oak
- N. zonariasub., on sand-hills
- " *hispidaria* ...at oak
- A. prodromaria to Feb., sub., at oak, elm, &c.; just beneath the surface
- E. punctaria... ...to April, fastened to leaf of oak, or birch
- E. pendularia ...to April, fastened to leaf of birch
- F. carbonariato April, among dead leaves of sallow, and birch
- H. rupicaparia in a web, on the ground, among oak, sloe, &c.
- " *leucophearia* on the ground, near oaks
- " *aurantiaria* ...sub., at hawthorn, " birch, oak, &c.
- " *progemmaria* sub., at oak, birch, hornbeam, &c.
- " *defoliaria*....sub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
- C. brumatasub., at oak, &c.
- O. dilutatasub., at oak, &c.
- L. multistrigaria sub., about *Galium*
- E. decorata ...about *Lychnis dioica*
- E. venosataabout *Silene*, and *Lychnis*
- " *fraxinata*, e. to April, on ash; under moss, and loose bark
- " *vulgata*.....to Mar., sub., about various plants, and trees
- " *exiguata*to April, about oak, &c.
- M. ocellatato May, among *Galium*; spun up, near the ground; larva s. remains during winter
- A. badiatain earthen cocoon, on the ground, beneath dog rose bushes

PUPÆ]

AUGUST

- A. derivatasub., at dog rose
 C. unidentaria, m. among bedstraw,
 and sweet woodruff, in a slight
 web, on the surface of the
 ground [broom]
 C. obliquaria ...to April, among
 D. vinula, e. ...to May, spun up,
 on trunk of willows, poplars,
 and sallow; three or four feet
 from the ground
 P. Cassineasub., at oak; deep
 N. carmelita... ...to April, sub., at
 birch
 D. ceruleocephala spun up, at haw-
 thorn, and sloe; under bark, or
 on twig
 C. ocularis, e. ...at poplar; spun up,
 under moss, &c.; or between
 leaves
 " ridensspun up, at oak,
 among rubbish; or under bark;
 s. among leaves, and falls with
 them; tender
 A. alnito April, between
 leaves of various trees; or in-
 side bramble sticks
 N. typhæ, e.in stems of *Typha*
 latifolia
 G. flavagoinside thistle, and
 burdock stems; about 3 in. from
 the ground
 T. piniperda.....to Mar., at Scotch,
 and other firs, in open places in
 fir woods, and on the margin;
 in crevices of bark, or under
 moss, and fallen needles; rarely
 within 2 ft. of the tree, 1½ in.
 to 2 in. deep
 T. gothicato Feb., at various
 trees; just beneath the surface
 " leucographa } to Feb., at r. of
 " rubricosa ... } low plants; below
 " the surface
 " instabilis ... } to Feb., at r. of
 " stabilis } various trees; just
 below the surface
 " opimato Feb., at r. of *Rosa*
 spinosissima, and dwarf sallow;
 below the sand, on sand-hills,
 in the North
 T. populetito Feb., sub., at
 poplars; especially *Populus*
 nigra; deep
 " gracilisto Feb., sub., at
 willows, sallows, and low plants
 " miniosaamong fallen oak
 leaves, &c.
 " mundaunder moss, at base
 of oaks
 " crudato Feb., sub., at
 oak
 O. lotabetween leaves of
 willow, and sallow; or on the
 ground
 " macilenta.....at r. of beech, and
 birch
 S. satellitiasub., at oak
 X. citrago, b. ... between united
 leaves of lime
 " cerago, b. ... sub., among low
 plants, near sallow
 " gilvago, b. ...sub., at wych elm
 " auragoin a cocoon, at
 beech
 " ferruginea ... sub., at sallow,
 poplar, &c.
 C. xerampelina sub., at ash; cocoon,
 very tender, and brittle
 D. templisub., at r. of *Hera-*
 clium sphondylium, &c.
 M. oxyacanthæ ..in a cocoon, on the
 ground; among sloe; and haw-
 thorn
 A. Aprilinasub., at oak
 C. vetustaamong meadow, and
 marsh plants; on the surface
 " exoletaamong scabious,
 campion, rest harrow, &c.
 C. fraxini, b.amongst the leaves
 of ash, and poplar
 " nuptaat *Salix fragilis*, and
 poplar; among the leaves; or
 in crevices of bark; or under
 loose bark
 P. festucæconspicuous amongst
 rush, &c.; near the sea
 P. acanthodactylus on *Bartsia*, and
 rest harrow
 " dichroactylus on tansy
 A. polydactyla ..on honeysuckle

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Many Moths, in their fresh "palmy state," make their appearance this month; while we may often see sunny banks, or fields glowing

"With open, velvet butterflies,
That swing, and spread their peacock eyes,
As if they cared no more to rise
From off their beds of chamomile."

All kinds of flowers, especially in exposed situations, should be carefully examined, soon after sunset, for the Moths they attract. *A. saucia*, and other local species, are often found on garden flowers, and flowering shrubs. As the honey of most flowers has a stupefying effect on Moths, they may be easily boxed from the flower, or shaken into an umbrella first. Other species, which hover over flowers, either in the sunshine, or at early dusk, as *C. celerio*, and *S. convolvuli*, and also many *Noctuæ*, must be netted first, and immediately introduced into a wide-mouthed bottle charged with chloroform, bruised laurel, or cyanide of potassium. Some other natural attractions than flowers, are also worth noting. Newly cut-down birch trees, as well as exudations from the bark of standing ones, attract both Butterflies, and Moths; and Butterflies are also, sometimes, drawn to a particular spot by some white, or brightly coloured object.

But to the attractions which nature offers, the energetic Collector adds those of art,

"And with delusive baits betrays."

The sugar-pot should now be prepared, and liberally used. If, owing to the abundance of flowers, captures should prove rare, the flowers themselves should be sugared, especially thistles, and flowers presenting a large surface, as they will prove superior to tree trunks, &c. Our highest authority in English Entomology, Mr. Henry Doubleday, of Epping, says the sugar should always be applied to the trees before sunset, and when practicable it should be put on warm, as the scent is much more powerful than when it is applied cold. The greatest number of Moths will generally be found about three quarters of an hour after sunset, and in spring and autumn but few will be found after ten o'clock. Many species visit the sugar about an hour before sunrise, in the morning. Sugar is almost useless in the neighbourhood of lime trees, when they are in bloom, and also when there is much honey-dew. Neither should the allurement of light be forgotten. In a favourable situation this means of capture may be pursued far into the night, as some species do not respond to the call until a late hour of the night, or early hour in the morning. It is recommended that a bright light be placed near a slightly-open window, and a net used for the capture of specimens. A wag has suggested that the watcher may wile the idle time away by reading Young's "Night Thoughts," Bulwer's "Night and Morning," or the "Arabian (K)nights' Entertainments!"

Gas lamps often prove highly attractive to Moths, and many good species have been captured therewith, though it is not often that their condition is fine. Lamplighters in country towns may sometimes be bought over to box specimens for you, as they often find them when they clean the lamps; but you must give frequent calls upon the official to keep him up to his work, and the chances are in favour of your getting little else than a lot of rubbish, or

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if any species are good they will probably be found to be much damaged by the rough treatment they have received. "Many species, especially the good ones, settle under the lamp, or on some part of the frame-work where they are not easily got at, or even seen, without climbing the lamp-post ; many lie very close to the frame, so that a keen inspection is required to detect them. Many species viewed from below appear like dead leaves, bits of stick, mud, &c. The time to commence the operation of 'lamping' is about 10 p.m. Very few Moths come sooner ; but they continue to appear till dawn. From two to three o'clock is a capital time."

Many species which are ordinarily single-brooded in this country, are double, or treble-brooded on the Continent, where the summer is longer and hotter ; but sometimes, in this country, in a hot season, an additional brood of an insect will appear. Thus, in 1868 there was a third brood of *S. Megara*. When this occurs, of course the times ordinarily set down for the appearance of a species should be somewhat advanced.

- | | |
|---|---|
| P. <i>Machaon</i> , s...fens, and marshes | T. <i>rubi</i> , s. 2. ...in woods, &c. |
| L. <i>sinapis</i> , 2. ...woods ; the autumn brood is rather smaller than the spring brood | " <i>betulæ</i> .....in woods, at fl. ; in wet weather may be readily taken with the fingers, as may many other butterflies |
| P. <i>brassicæ</i> , 2....gardens, &c. | P. <i>Hippothoe</i> ...formerly in Cambridge fens |
| " <i>rapæ</i> , 2. ....gardens, &c. | Phleas, s. ...fields, &c. |
| " <i>napi</i> , 2. ....gardens, &c. | L. <i>Bætica</i>.....has been recently taken in this country |
| " <i>Daplidice</i> , 2. has been taken in lucerne fields | " <i>Egon</i> .....at rest, on heather, at night |
| G. <i>rhamni</i> , h. ...in woods | " <i>agestis</i> , 2. ...on hills, &c. |
| C. <i>Edusa</i> , h. ...lucerne, and clover fields, railway banks, &c. Fond of fl. | " <i>Alexis</i> , e. 2....fields, and hills |
| " <i>Hyale</i> , h. ...lucerne, and clover fields; more especially near the coast | " <i>Adonis</i> , 2. ...chalk downs, and limestone hills |
| A. <i>Latona</i> .....fields, woods, &c. | " <i>Corydon</i> , b. chalk downs, and limestone hills |
| " <i>Euphyrosyne</i> , s. woods, &c. | " <i>Argiolus</i> , 2....among holly, and ivy, and at fl. |
| S. <i>Selene</i> , s. ...woods, &c. | S. <i>Alveolus</i> , s... woods, &c. |
| V. <i>polychloros</i> , h. about elms | T. <i>Tages</i> , 2.....dry heaths, commons, and hills |
| " <i>Antiope</i> , h....attracted by sugar, ivy bloom, and cossus-infected trees | H. <i>sylvanus</i> , 2....woods, and grassy hills |
| " <i>Io</i> , h. ....woods, &c. ; at fl. | " <i>comma</i> .....hills, &c. |
| " <i>Atalanta</i> , h. gardens, &c. ; fond of fl., and fallen fruit | " <i>Acteon</i> .....on the Dorset coast |
| " <i>cardui</i> , h. ...at fl. ; often rests on a hot dusty road, and on the lead roofs of churches, and other buildings, in the sunshine | A. <i>Atropos</i> .....at rest |
| E. <i>Medea</i> | S. <i>convolvuli</i> ...at fl., at dusk |
| S. <i>Ægeria</i> , 2. ...woods, and lanes | D. <i>euphorbiæ</i> ...on the coast |
| " <i>Megæra</i> , 2....at fl., in lanes, and on walls, and banks | " <i>gallii</i>on the coast |
| | " <i>lineata</i> |
| | C. <i>celerio</i>at fl., at dusk |
| | H. <i>sylvinus</i> , b....flies just before dusk |

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- N. senexin wet places
 S. irrorella
 L. muscerdainfens, &c., among alder; flies in the evening
 " pygmæolaat Deal
 " caniola, b.Cliffs of Howth; flies at dusk; in the dawn comes to sugar; males may be attracted by a bred female
 " stramineola (var.) by moist wood-sides, and ditches
 " quadra.....beaten from fir, and oak
 D. pulchella..... in stubble fields, flying by day
 C. Herahas occurred at sugar, at Exeter
 E. russula, s.heaths, &c.
 A. fuliginosa, e. s. a succession of broods, from the same pair
 L. chrysorrhæa at rest
 " salicison willows, and poplars
 " monachacomes to l.
 O. cœnosa.....fens, and marshes
 " gonostigma, s. at rest
 " antiquaflies just before a storm
 T. crategithe ♂ fly between 6 and 7 p.m., and probably again in the early morning. The ♀ are very sluggish. In confinement the moth emerges generally between 5 and 7 p.m.
 B. castrensis.....S.E. coast
 " roboris.....flies at dusk
 " quercus
 " trifoliinear the coast
 E. apicariahedges, &c.; flies soon after 7 a.m.
 R. cratægata ...hedges, &c.
 E. fasciaria, h....among fir; flies at night
 P. syringaria, 2., s. gardens, &c.; flies at dusk, over fl.
 S. illustraria, 2...the summer brood, or var. delunaria
 C. elinguaria ...hedges, &c.
 E. tiliariacomes to l.
 " fuscantaria, e. comes to l.
- E. erosaria
 " angulariaon trees, &c.; comes to l.
 H. abruptaria, 2. in gardens and woods; rests on trees, and palings; comes to l.
 D. obfuscata..... on heaths, about Scotch mountains
 A. trigeminata, 2. in some hot summers many of the Acidaliæ are double-brooded
 " incanariaon palings, walls, &c., near gardens
 " ornata, 2.....in grassy places
 " promutata ...woods
 " mancuniata ...
 " subsericeata... beaten from wild rose
 " imitariaamong Rosa spinosissima, at Portland
 " emutariasalt marshes of Kent, Norfolk, and the New Forest; flies at dusk. The Sheerness specimens are more tinged with rose-colour than the others
 C. exanthemaria woods
 S. plumaria ...
 M. euphorbiata, 2. ? woods
 S. sacraria.....flies by day; has been taken at fl., at sugar, and at l.
 A. ononaria, 2. among, or near rest-harrow
 A. citraria, 2.among wild carrot, chiefly on the coast
 " galvaria..... wild in the net
 A.. grossulariata gardens, and hedges
 L. marginata ...woods, and hedges
 O. filigrammaria
 L. olivatawoods
 E. unifasciata ...
 " bifasciata? ...in an old hedge, in a marsh
 " blandiata
 E. centaureata...at rest, on palings, &c.
 " subfulvata ...at fl.
 " pygmæata, s. 2.
 " pimpinellata, 2.

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- E. indigata, 2...on fir trunks
" constrictata ...
" nanata, 2. s....on heaths
" expallidata ...
" assimilata, 2.
" pumilata, 2.
T. simulata, 2....
" variata, 2., h. among larch
firmata
M. rivata
" fluctuata, 2., in gardens, &c.
A. berberata, 2.
C. ferrugata, 2. woods
" unidentaria, e., 2.
P. lapidariaat Rannoch
" lignata, e., 2. this brood is smaller,
and generally more abundant
than the first brood
" polygrammata, 2. damp meadows;
very local
" vitalbata
S. dubitata, h....at light
C. russata.....woods
" immanata ...
" silacea, 2., h. among willow herb;
beaten from thatch. Double-
brooded only in the S.
E. mæniatabeaten from broom ;
at E. Grinstead, &c.
" lineolata, 2.....rests on coarse
grasses; on the coast
A. plagiata, 2.
P. falcula, 2.....beaten from birch
" hamula, s., 2. flies in the day time,
generally in the morning ; beaten
from oak
" unguicula, s., 2., a day flyer ; beaten
from beech
C. spinula, 2.rests on palings, &c.
P. bicephala ...at rest
C. anachoreata...
" reclusa
- N. camelinaat light ; hides on
fern fronds, and in, and on trees
" cucullina, s....comes out when a
thunder storm is imminent
" dictæaat rest, at base of
willows, and large poplars
" dromedarius, s.
" tritophus
- N. ziczachides in bark
crevices of poplar
C. diluta
B. glandifera ...on walls
" algæ
" perla.....on walls
A. alnithis rare species has
occurred at sugar, but is oftener
found in the larva state
" auricoma, h.
S. musculosa ...
L. albipuncta ...at fl.
" putrescens, b.
" straminea, b. marshes, and fens
" pallens, b.
N. despectamarshes, and fens
" fulva.....s. abundant in one
corner of a meadow
" neurica.....
" brevilinea ... at Horning Fen,
&c.; flies at dusk, among reed
mace
" cannaea marsh species
" lutosain marshes
H. noctitansat ragwort, & thistle
fl.; comes to l.
" petasitisamong butter burr
micaeacomes to l.
X. polyodon.....
" scolopacina ...
D. pinastri
A. Australis.....among grass; comes
to l.
L. exiguamost often taken at
gas lamps
N. saponaria ...
H. popularis.....
C. graminison commons ; s. at
ragwort, and thistle, fl.
C. Cythereain dry, grassy places;
comes to l.
L. testacea
" Dumerili
" cespitis.....hides in grass, by
day ; comes to l.
M. furva
" brassicærests on walls, &c.
A. gemina
" fibrosain marshy places
" oculea

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- M. literosaon the coast
 C. Haworthii ...
 A. caliginosa ...
 C. cubicularis ..beaten from thatch;
 flies in hay-fields
 A. valligeraat fl.; mostly on the
 coast
 " Puta, 2., h. ...
 " suffusa, h. ...
 " fennica
 " saucia, h.at fl. ; comes to l.
 " segetum
 " lunigera
 " exclamationis often in kitchen
 gardens
 " spinifera
 " cursoriaby beating, on coast
 sand-hills
 " nigricans ...
 " tritici, b.
 " aquilina, b. ...
 " obeliscaon ragwort fl.
 " agathinabeaten from heath
 in the day time; flies over the
 fl., and rests on them, at night
 " porphyrea ...among heath
 " præcox.....on sand-hills, by the
 coast
 " raviga, b. ...comes to l.
 " pyrophila, b.
 " Ashworthii ...
 T. ianthina
 " fimbria.....comes to l.
 " interjecta ...
 " subsequacomes to l.
 " Orbonacomes to l.
 " pronubacomes to l.
 N. glareosa, e.on heaths
 " depuncta
 " augur
 " plecta, b.
 " C.-nigrum ...comes to l.
 " rhomboidea ...
 " brunnea
 " festiva
 " conflua
 " Dahlii
 " rubi
 " umbrosaat ragwort fl.
 " Bala...
- N. sobrina
 " neglectaon heaths, at sugared
 rags
 " xanthographa
 P. alpina
 O. suspecta
 A. rufina, e.
 " pistacina, e....
 " litura
 X. citrago, e.at l., and ivy; this,
 and the two following frequent
 the leaves, and twigs of lime
 trees, at night
 " cerago
 " silago
 " aurago, e. ...at fl.
 " gilvago
 " ferruginea ...at fl.
 C. xerampelina...at l., and at rest, on
 ash trunks
 T. subtusa, b. ...
 " retusacomes to l.
 E. fulvagoin Sherwood Forest,
 at heath fl.
 D. oo.....comes to l.
 C. trapezina
 " pyralina
 " diffiniscomes to l.
 " affiniscomes to l.
 E. ochroleuca ...at fl.; rests on knap-
 weed, thistles, &c.
 D. capsophila, s., 2.
 " capsincola, 2.
 " cucubali, 2. ? flies in the sunshine
 P. chion tree trunks
 " xanthomista...
 " flavocincta ...on walls, &c.
 E. lutulentaat heath fl.
 " nigra.....at fl.
 " viminalisamong sallows
 " licheneaon the coast
 M. bimaculosa ...
 P. meticulosa ...
 A. occulta.....at rest, early in the
 morning; unquiet when boxed
 " nebulosa
 " tintataon trees, stumps,
 and palings; unquiet when
 boxed
 H. satra

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- H. peregrina ...
 " chenopodii ...at fl., and l.
 " suasa, s., 2...
 C. solidaginis ...
 C. vetusta, e., h. at fl.
 " exoleta, e., h. at fl.
 X. furcifera, h....at ivy ; rests on tree trunks
 H. peltigera.....may be started from herbage
 armigeraat ivy
 " scutosaformerly nr. Silloth
 A. sulphuralisat l. ; s. on fl. of knapweed, in the day time
 A. luctuosaflies in the sunshine, over fl., in clover fields, &c.
 A. urticæ
 " triplasia
 P. orichalceaon the coast
 " chrysitis, 2.among nettle bractea
 " festucaein salt marshes ; flies over Lychnis fl., &c.
 " iotaamong ground ivy
 " gamma.....flies in the sunshine
 " ni, 2.
 " interrogationis flies wildly ; rests on rocks, and stumps, in dull weather
 G. libatrix, h ...in cellars, and on palings, trees, &c.
 A. pyramidea ...
 " tragopogonis hides in windows
 " mauras. rests on inner surface of roofs of outhouses
 S. anomalaat heath, and flying along hedgerows, at night ; remains fine but a very few days after emergence
 C. fraxini
 " nuptaat rest, on trees and walls ; soon alarmed, when approached ; comes to l.
 " promissa ...
 " sponsa} in the New Forest, Norfolk, &c. ; all the genus are somewhat restless when boxed, unless the box is capacious
- H. rostralis, h....
 H. albistrigalis at rush fl., and s. sugar
 " costæstrigalis at rush fl., and s. sugar
 H. derivaliscomes to l.
 A. flexula.....beaten from hedges
 O. dentalison the coast, among viper's bugloss
 P. fimbrialiscomes to l.
 " farinalisin stables, &c.
 " glaucinalis .. in thatch ; and at l.
 P. punicealis, 2. in grassy places ; flies in the sunshine
 " ostrinalis 2.? R. sanguinalis 2? flies at dusk
 H. cespitalis 2.? E. cingulalis 2?on grassy hill-sides, &c.
 " anguinalis 2.? ...on grassy hill-sides, &c.
 C. leminalisamong the weeds of duckweed-covered ponds ; flies at dusk ; comes to l.
 P. stratiotis ...among water plants ; flies at dusk ; comes to l.
 A. nivea, b.at rest, on twigs, &c. in weedy ponds and rivers, close to the water's edge, or flying slowly over the surface
 B. flavalisin chalk, and limestone districts, on the S. coast
 P. forficalis 2?gardens
 " stramentalis...beaten from under-growth, in woods, fens, &c.
 S. stictalisat l., and fl.
 " palealis.....among wild carrot, and Peucedanum, on the S.E. coast
 " cinctalisclover fields ; comes to l.
 S. alpinalison the tops of mountains, in Perthshire, &c.
 " lutealis.....in hedges
 " ferrugalisbeaten from hedges ; flies at dusk ; comes to fl., and sugar
 " decrepitalis ...
 S. Zelleribeaten out of old willows, and hawthorns

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- S. cembræ C. geniculellus...
 " murana among heath M. cribrella.....among thistles; often
 " lineola among old, lichen- on hills
 covered sloe, and hawthorn T. pryorella
 bushes H. nimbellaamong Jasione mon-
 " crataegella ... [local tana, and thistles, and ragwort;
 resineaon ash trunks, very on the coast
 phæoleuca ... " nebulella among Carduus
 truncicella on fir trunks nutans, &c.; very local
 coarcatalis (angustea) on mossy " binævella.....
 walls E. pinguis.....rests on ash trunks;
 alpina comes to l.
 P. obductella ...
 P. alpinellus.....in sandy, grassy " ornatella
 places, especially in fir woods; " abietellamay be beaten from
 not a mountain species young fir trees
 E. ocellae, e., h. comes to l.
 C. verellus roborella.....
 falsellus common in Eng- P. palumbella ...among heath
 land, more local in Scotland R. consociella ...s. at sugar
 pratellus, 2...s. at sugar " adenella.....
 dumetellus ... tumidella.....
 ericellus ...on moors, among O. ahenella
 heath; local M. sociella
 sylvestris (adipellus) in fens, &c. anella
 hamellus in grassy places, G. cerella
 among heath S. Revayana, h. woods
 pascuellus ...damp meadows, and T. rosana
 moors; local; s. at sugar " corylanawoods
 furcattellus ...a mountain species, " costana.....fens, and marshes
 in Britain " viburnana.....boggy heaths, and
 margaritellus damp, grassy places, " moors
 in open woods " icteranadry banks
 pinetellus best obtained at " adjunctana ...
 night, by searching dry banks D. grotianaamong oak, in woods
 latistriellus ...on coast sand-hills; A. Gerningana...heaths, and moors
 local L. literanaon oak trunks
 perrellus P. sponsanawoods
 Warringtonellus on mosses, and " Schalleriana...on moors, and fens;
 moors, and on the coast; very among sallow
 local " comparana ...
 selasellusfens, and wet " Caledoniana Northern moors
 meadows " varieganahedges
 tristellus cristanaamong dwarf sallows
 fascelinellus...on the coast, near " Hastianaamong sallows
 Yarmouth; at rest, on the sand " macannaRannoch
 inquinatellus among alder bushes, " ferruganawoods
 and on heaths; s. at sugar " aspersana ...Yorks coast, &c.
 contaminellus dry pastures; rather " Shepherdana fens
 local " comarianaboggy heaths, and
 fens

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- T. caudanawoods, and fens
" contaminana hawthorn hedges, &c.
D. Lorquiniana fens
P. marginana ...damp woods, heaths, and fens
S. acerianaamong poplars
" dealbanain oak woods
" rosæcolana ...in gardens, among roses
S. euphoriana South coast
" bifasciana ...among Scotch fir
" abscisanaat Folkestone, among Inula, and thistles
" lacunana
" urticanawoods
M. Schulziana ...heaths, and mosses
" Ratzburgiana among spruce, and Scotch fir
P. inornatana (subarcuana) in fens ; local
" paludanain fens ; local
" compatanachalk downs, &c.
Lundana
- G. nisanaamong sallow ; local
" trimaculana ...among elm
" næviana.....among holly
P. immundana ...woods
H. augustana ...Durham, Scotland
B. angustioriana garden hedges
P. corticanaamong oaks
" profundana ...among oaks
" ophthalmicana among aspens
" occultanaamong young fir
" Solandriana...among alder, and poplar
" semifuscana.. among sallows
E. bimaculana ...woods
" Brunniciana
" tetragonana ...among black briony
O. ulmana..... Yorks, Norfolk, Surrey, &c.
S. rufillanaamong wild carrot
C. Hercyniana...among spruce
R. pinicolana ...among Scotch fir
" pinivorana ...among Scotch fir
C. splendana ...among oak
S. composana ...among clover, and trefoils
" orobanaScarboro', &c.
- D. alpinanaat river sides, among tansy
" Petiverana ...among yarrow
" acuminatana railway banks, &c.
" simpliciana ... among Artemisia vulgaris
C. ulicetanaamong furze
" cana.....among thistles
" Hohenwarthiana among thistles
" Scopuliana ... among Centaurea nigra
" æmulanaSouthend
" pupillana ...on the coast, among Artemisia
C. scintillulana marshes
E. dubitana
- " angustana ...on heaths, &c.
" roseanaGravesend
" implicatana ...woods, in the S.
" anthemidana chalk districts
X. Zoegana among Centaurea nigra
C. rutulanaamong juniper
C. dipoltanaon chalk, in the S.
A. osseanamarshes
P. Birdella
- S. chorargella ...Cumberland, Epping, and New Forest
" emortuella ... Cheshire, Epping, Gloucestershire, &c.
" cloacella... ...
" arcella
- T. rusticella.....
" monachella ...Cambs
" confusella ...Howth, Hartlepool
" misellain outhouses
" pellionella ...common, in houses
" fuscipunctella
" pallacecentella in warehouses, and poulticer's shops
" nigripunctellaYork, Bristol, Lewes
- ruricolella ...
S. comptella ...among sloe
S. pyrellain hawthorn hedges
Y. virginipunctella Guildford, Beckenham
" plumbellula ...among Eunonymus europœus
" padellaamong hawthorn

IMAGOSI

AUGUST

- E. evonymella ... among *Prunus padus*
 P. porrectella ...
 " annulatella ... Howth, Castle Eden,
 Scotland, Portland, &c.
 Dalella on moors
 H. sequella on trunks of sycamore, and maple
 " vittella on trunks of elm, and beech
 " radiatella ... among oak
 costella
 V. sylvella among young oak
 alpella among oak
 lucella
 asperella among apple
 H. scabrella among crab apple ;
 on tansy fl., at dusk
 nemorella among honeysuckle
 P. caudella, h. among *Eunonymus europeus*
 O. sparganella ...
 P. querella among oak
 D. costosella among furze
 liturella among *Centaurea palliorella*, h.
 umbellella among furze
 assimilella among broom
 nanatella
 atomella
 arenella
 propinquella, h.
 subpropinquella, h.
 Alstræmeriella, h. among *Conium maculatum*
 ciniflonella, h. Rannoch
 vaccinella, h.
 capreolella ...
 hypericella ...
 conterminella, h. among sallows
 angelicella ... among *Angelica sylvestris*
 carduella among thistles
 ocellella among sallow
 Yeatesiella ... in fens, &c.
 applanella, h.
 ciliella, h. ...
 rotundella ... Howth, Lancashire,
 Folkestone, &c.
 depressella ... Fleetwood, Essex,
 Folkestone, &c. ...

D. pimpinella ...
 " albipunctella, h.
 " emeritella ...
 " pulcherimella among *Bunium flexuosum*
 " Douglasella ... Fleetwood, Redcar,
 Folkestone, Isle of Wight, &c.
 " Weirella Preston, Lewisham,
 Lewes
 " chærophyllivorella, h.
 " ultimella marshes, &c.
 " nervosella ...
 " badiella
 " discipunctella
 " heracliella, h.
 " olerella near Hazlemere ;
 beaten from thatch
 P. gibbosella ... Manchester, Hainault
 G. rufescenella marshes, &c.
 " vilella Gravesend, Worthing, Folkestone, &c.
 " hippophaella near Deal
 " populella Yorks, Birkenhead,
 Bristol, &c.
 " lentiginosella Preston, Epping, &c.
 " velocella Witherslack, Cambs
 " fumatella New Brighton, Birkenhead, Dawlish
 " ericotella moors, and heaths
 " mulinella among furze, and broom
 " desertella sand-hills, on the coast
 " acuminatella among thistles
 " artemisiella ... coast sand-hills, Manchester, &c.
 " senectella in lanes, &c.
 " mundella coast sands
 " similella
 " domesticella
 " rhombella ... among crab, in hedges, &c.
 " Lyrella Castle Eden, Witherslack, New Forest, Worthing
 " distinctella ... Lytham, Croydon, Portland
 " costella among *Solanum dulcamara*
 maculella

IMAGOS]

AUGUST

- G. tricolorella ...
 " fraternella ...Manchester, Yorks,
 &c.
 " vicinellaBelfast, Brighton
 " junctellaWitherslack, Lake
 District, &c.
 " Hubnerella ...Carlisle, nr. Wake-
 field, Manchester, &c.
 " marmorella ...coast sand-hills
 " instabilella ...on the coast
 " ocellatella ...Folkestone, Preston,
 the Lizard; s. at sugar
 " atriplicella, 2. S. Shields, Scar-
 boro'
 " sequacella ...
 " albicapitella...
 " tæniolella.....
 " immaculella...W. Wickham
 " anthyllidiella...railway banks, and
 coast sand-hills
 " atrellaWitherslack, Dar-
 lington, West Wickham
 " bifractella ...Folkestone, Mickle-
 ham, Bristol
 " gemmella.....Birkenhead, Bristol,
 Manchester
 " nævifera ...among Chenopo-
 dium
 " Hermannella Cambs, Yorks, &c.
 " pictellacoast sand-hills
 " brizella.....near Dawlish,
 Brighton, Southend
 " ericinellaheaths
 " paupellanear Lewisham,
 Folkestone, Lewes
 " inopellanear Bristol, Folkes-
 tone, Lewes
 " Knaggsiella...
 P. Metzneriella Darlington, Scar-
 boro', &c.
 " neuropterella Deal, Mickleham
 C. cytisella
 " striatellaCambs, Brighton,
 Lewisham
 C. conscriptella Witherslack
 A. spartiellaamong furze
 M. marginella ...among juniper
 A. palpellaHainault, Ripley
 N. Duidhamella Bristol, Darenth,
 Deal
- CE. flavimaculella among Angelica
 sylvestris
 " lunarellaCambs, Lewes,
 Lewisham, &c.
 " subaquilella...Yorks, Lake District
 " fuscoarella ...West Wickham, &c.
 " fuscresentella
 " pseudospretella common in houses
 CE. Kindermannella in houses
 A. granitella ...Cambs, Witherslack,
 Darlington
 " autumnitella, h. among Solanum
 dulcamara
 " betulellaCastle Eden, and
 High Force; beaten out
 R. Erxlebenella among lime under-
 wood
 G. equitellaamong Sedum acre
 Fischeriella ...
 A. nitidellaamong hawthorn
 " semitestacella among beech
 " spinellaamong mountain
 ash, on moors
 " semifuscella...in hedges, among
 sloe, and hawthorn
 " Andereggella
 " aurulentella...Sanderstead, Mickle-
 ham, Tenderden
 O. pinariella, 2. among Scotch fir
 Z. hepariella, h. Darlington, Lake
 District, &c.
 " insignipennella to April (probably
 ♀ of hepariella)
 G. alchimiella ...
 " stigmatella, h. among sallow, and
 poplar
 " stramineella, h. Castle Eden, Lake
 District, Stirlingshire
 " tringipennella among Plantago
 lanceolata
 " syringella.....in gardens, among
 lilac
 " omissellaamong Artemisia
 vulgaris
 " auroguttella... among Hypericum
 quadrangulum
 " ononiellaCambs, Mickleham
 Hoffmanniella at Richmond, Yorks
 C. Brogniartella Yorks, Lake District,
 Cambs

IMAGOS]**AUGUST**

- C. cuculipennella, h. among privet
 O. avellanella ...among nut
 " anglicella.....among hawthorn
 " betulevarella among birch
 " torquilella ...among sloe
 G. atriclivorella Isle of Wight
 C. alcyonipennella in sheltered places,
 among *Centaurea nigra*
 " ochreella
- " salicornella ... Fleetwood
 " binotapennella near Brighton
 " anatipennella
 " discordella ...among *Lotus major*
 " trogloditella Yorks, Cambs, Castle
 Eden, &c.
 " squamosella...near Mickleham
 " annulatella (*Tengstromella*) among
 Chenopodium
 " salinellaYorks, and near
 Brighton
 " apicella (cacuminatella) fens, and
 marshes
 " virgaureella ...Grange, Scarboro',
 Devon
 " griphipennella among rose
 B. somnulentella
 B. praæangustella on poplars, and sal-
 lows
 O. v.-flavella ...in wine vaults, and
 cellars
 C. insecurrella ...at Stoat's Nest, near
 Croydon
 chærophyllella
 L. paludicolella Lake District, Yorks,
 Cambs, Darlington
 " lactellaYorks, Lake Dis-
 trict
 " miscellaWitherslack, Yorks,
 Castle Eden
 " Raschiella ...Box Hill
 Stephensiella Hainault Forest
 " epilobiella, h.
 " ochraceella ...among Epilobium
 " decolorella ...among Epilobium
 " subbistrigella, h. ...Witherslack,
 Worthing, Devon
 C. Linneella ...in parks, &c., among
 old lime trees
 " Schrankella.....Witherslack,
 Scarboro', Scotland
- H. Roesella.....formerly near London
 A. Langiella ...Devon, Lake District
 C. festaliella.....among blackberry
 S. Brunnichella in chalk-pits, among
 Clinopodium vulgare
 E. luticomella ...
 " poellaamong *Poa aquatica*
 " Kilmunella ...moors, marshes, and
 bogs ; among coarse grass
 " nigrella
 " subnigrella ... Scarboro', Bristol,
 Mickleham
 " Bedellella ...
 " subobscurella Darlington, Scarboro'
 " zonariella.....
 " Megerella ...
 " cerussella.....
 " biatomella ... Witherslack, Dar-
 lington, Cambs
 cygnipennella
 T. marginellaamong blackberry
 L. roborella, 2....most of these second
 appearances of the genus Litho-
 colletis do not occur in the North
 " hortellavery local
 " Amyotella ...
 " lantanella.....among guelder rose
 " quinqueguttella among dwarf sal-
 lows
 " irradiellaamong oak
 " Bremiella ...
 " lautella..... among oak
 " vacciniella ...Yorks, Scotland, &c.
 " cavellaWest Wickham
 " pomifoliella .. among hawthorn,
 and apple
 " spinicolella ...among sloe
 " faginellaamong beech
 " torninella ...Manchester, Lewis-
 ham
 " salicicolella ...among sallow
 " viminetella ...Witherslack, Man-
 chester, &c.
 " carpinicolella among hornbeam ;
 local
 " ulmifoliella ...among birch
 " spinolella.....among sallow
 " quercifoliella among oak
 " Messaniella... among evergreen oak
 " corylifoliella among hawthorn

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- L. Caledoniella Lake District, Darlington, Yorks, Scotland
 " viminiella.....among sallow
 " ulicicolella ...among furze
 " alnifoliella ...among alder
 " Heegerella ..among oak
 " Cramerella ...among oak
 " tenella Epping, Wimborne
 " sylvella (acerifoliella) among maple
 " emberizapennella Yorks, Lake District, &c.
 " Frolichiella ...among alder
 Dunningiella Darlington, Lake District, Yorks
 " Nicelliella ...among nut
 " Stettinella ...among alder
 Kleemanella Scarboro', Harrogate, Preston
 Schreberella...among elm
 tristrigella ..among elm
 trifasciella ...among honeysuckle
 " scabioscecolella
 comparella ..London District
 L. Clerckella, h. among sloe, and fruit trees
 P. salignellaamong willows, near London
 C. spartifoliella among broom
 laburnellaamong laburnum
 O. reliquella, b.
 B. aurimaculella... among Chrysanthemum leucanthemum
 " ulmella.....among oak
 " cristatellaamong yarrow
 N. atricapitella among oak
 " ruficapitella ...among oak
 " amomelella ...among rose
 " tiliaeella, b.
 " perpygmaeella among hawthorn
 " pomellaDarlington, Richmond, Yorks, Lewisham, &c.
 " oxyacanthella among hawthorn
 " viscerellaRichmond, Yorks, Darlington
 " catharticella...Yorks, &c.
 " Septembrella among Hypericum
 " cryptellaScarboro', Darlington, Manchester [boro', Headleyella...Mickleham, Scar-
- N. trimaculella...Darlington, Yorks
 " floslactella ...among nut
 " salicivorella ...among sallow
 " myrtillella ...Witherslack, Yorks, Manchester
 " microtheriella ...among nut, and hornbeam
 " betulicolella... Darlington, Scarborough', W. Wickham, Manchester
 " ignobilella ...among hawthorn
 " acetosella..... Witherslack, Isle of Wight, near Dublin
 " plagiolella ...among sloe [ter
 prunetella ...Scarboro', Manchester
 " tityrellaamong beech
 " malella.....among wild apple
 " atricolella ...Darlington, Manchester, Lewisham [boro'
 " arcuosella.....Darlington, Scar
 " margincolella among elm ; local
 " glutinosella ...Yorks, Darlington
 " aurellaamong blackberry
 " splendidissimella among bramble, dewberry, and wild raspberry
 " luteella.....
 " ulmivorella ...among elm
 T. atrifrontella...Lewisham
 " squamatella...Charlton, Bristol
 " immundella...among broom
 P. rhododactylus among rose
 " isodactylus among Senecio aquaticus
 " acanthodactylus on heaths
 " punctidactylus..... Lake District, Birkenhead, Bristol, Farnham
 " hieracii.....
 " pilosellæCambs, Mickleham
 " zophodactylus
 " fuscodactylus
 " lithodactylus among Inula dentica
 " pterodactylus among convolvulus
 " osteodactylus Scarboro', Witherslack
 " baliodactylus, b. Bristol, Lewes, Mickleham
 " tetractylus among thyme
 " pentadactylus among Convolvulus sepium, and arvensis
 A. polydactyla, h. among honeysuckle

SEPTEMBER

ova]

With fewer distractions, in the shape of freshly emerged Imagos, this month, more attention may be given to the search for eggs, especially when it is found so many species are now obtainable in that condition. When eggs have been obtained, they should not be kept "coddled up" in a close warm place, but should be secured on, or near, the food-plant, fully exposed to the weather, otherwise there will be great danger of their drying up.

- C. Edusa, s. on white clover, lucerne, &c.
- A. Latona.....on violet, and hearts-ease
- T. quercuson oak twigs
- " w.-albumon wytch elm; also elm ; on the twigs
- " pruni..... on sloe twigs
- " betulæon sloe twigs
- L. Ægonon *Ornithopus perpusillus*; white
- " Alexison rest harrow, trefoil, &c.
- H. comma on trefoil, and other Leguminosæ
- L. disparon sloe, hawthorn, fruit trees ; on the trunks, in a heap, covered with down
- " monachaon oak, beech, fir, apple, birch, &c.
- T. cratægi.....to Mar., on hawthorn, sloe, &c.; on roadside hedges ; pale-brown, thickly covered with dark-coloured down
- B. neustriaon hawthorn, sloe, fruit-trees ; in batches, round the twigs, and branches
- " castrensison *Artemisia maritima*, *Daucus maritimus*, &c.
- C. elinguaria ...on oak, honeysuckle, hawthorn, sloe; also heath, bilberry, &c.
- E. vespertaria ...on nut
- " apicariaon poplar, willow, sallow
- E. alnaria to May, on alder, birch, sallow, beech, &c.; brick-shaped, like all the Ennomos
- E. tiliariato May, on oak, sallow, birch, alder, &c.; purplish
- " fuscantaria ... to May, on ash, privet; upon the twigs, in small batches
- F. pinetariaon bilberry
- O. filigrammaria to Feb., on sallow
- E. subciliata.....on maple; at foot-stalk of leaf
- M. rubiginata ...on alder; large
- L. lignata.....on *Gaulium palustre*, &c.
- S. vetulata on buckthorn
- C. immanata ...probably on alder, and other trees, and strawberry, bilberry, &c.
- " prunataon currant, gooseberry, sloe, &c.; on the bark ; large
- " testataon heath, birch, sallow, poplar, &c.; singly, large
- " populataon bilberry, whortleberry, poplar ; globular, large, yellow
- " fulvataon dog rose ; rose-pink, large
- " pyraliataon *Gaulium*, and hawthorn
- " dotataon black, and red currant ; large
- T. chærophyllata on *Bunium flexuosum*
- D. cæruleocephala on hawthorn, sloe; ragged
- B. glandifera ...on wall-lichens
- " perlæ..... ...on wall-lichens
- L. pallens..... on *Deschampsia cæspitosa*

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N. lutesa ...on stems of common reed	T. subtusa.....poplar ; upon twigs
G. flavagoto April, on stems of marsh thistles, burdock, &c. ; in heaps	" retusato Mar., on sallow, willow, poplar ; upon the axils of the leaves
T. fimbria.....on primrose, broom, and various trees	P. chi .....on dock, hawthorn, sallow ; and probably lettuce, sow thistle, "tea tree," &c.
N. xanthographa on plantain, &c.	" flavocincta ...to March, on dock, chickweed, groundsel, mint, &c. ; in gardens, on everlasting pea, plum, &c.
A. rufina .....on oak. Oval, with a slight peak rising from the centre, ribbed rather coarsely from base to centre ; dirty-pink, brown round the base, and a conspicuous brown central spot	M. oxyacanthæ on hawthorn, sloe ; rather large, distinctly ribbed
C. xerampelina...on ash ; probably in the chinks of the twigs, and the buds ; round, smooth, dirty- white	P. empyrea .....on pilewort, on the leaf-stalks
	H. proboscidalis on nettle ; rather large, pale-yellow

LARVÆ]

Many "good" species may be found this month in a state closely approaching maturity, and about

"to keep
The lazy sabbath of a half-year's sleep."

Several of these, however, are wholly out of reach in the day time, hiding among roots, in bark chinks, under leaves, stones, &c., and they are only to be found, with the aid of a lantern, feeding, or searching about for attractive pabulum, or a place of pupation,

"while, deep and wide,
The dim night settles on the country side."

Although a large number thus found this month speedily pupate, still a good many which may be obtained by beating and sweeping, hibernate, some being very small ; and unless the Collector is able to provide something approaching the natural conditions of larval life, they are best left until the spring. Their re-appearance at that season is duly recorded in the lists.

C. reclusa regularly appears twice a-year, in confinement ; but when at large, its habits do not appear so regular. L. roboris will occasionally feed all the winter, if tolerably mild, and many other species will at times have a nibble, if the food-plant is handy. The eggs of C. xerampelina occasionally hatch this month, though generally later. The young larvæ feed only by night, on ash, though they will sometimes eat hawthorn, and guelder rose. Now is the time when we find

"Acorns, ripe, down patterning,
While the autumn breezes sing ;"

and in these same acorns we find the larvæ of two pretty little species, C. splendana, and C. Juliana. The acorns should be collected as soon as possible, before the larvæ make their escape, and kept in a proper receptacle in a cool place.

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- L. sinapis Vicia cracca, and
Orobus tuberosus
- P. brassicæ cabbage, &c.
" rapæ Cruciferæ, &c.
" napi Cruciferæ
- D. Daplidice wild mignonette,
and weld
- V. polychloros, s., h. ground shoots
of elm; will also eat osier, sallow,
aspen, and fruit trees. The
eggs of this species are s. laid
about this time, and hatch, and
the young larvæ hibernate. It
is, however, generally supposed
that none of the Vanessæ pair
until the spring
- " cardui thistles; will also
eat nettle
- E. epiphron, h. probably on Nardus
stricta, and small rushes; in
mountain bogs
- " Medea, h. ...moorland poa, and
other grasses
- S. Ægeria, h. ...grasses
- " Megera, h. ...grasses
- " Semele, h.quaking grass,
couch grass, &c.; on dry hill-
sides, &c.
- " Ianira, h.meadow grasses
- " Tithonus, h.annual meadow
grass, &c.
- " hyperanthus, h. annual meadow,
millet, and other grasses
- C. Davus, h. ...Rhyncospora alba
- P. Hippothoe, h. great water dock
- Phileas, h. ..dock, ragwort, sorrel
- L. Breтика Colluta arborescens
- " agestis, h. Erodium circutarium
- " Argiolius ivy, fl. The eggs
of this, the second brood, are
laid on the fl.-stalks; the young
larvæ burrow in the unexpanded
fl.-buds, feed up in the blossom,
and spin up on the underside of
a leaf; the butterfly appearing
in April, or beginning of May
- N. Lucina.....Primula
- T. Tages, h.Lotus corniculatus
- H. Panicus plantain, in rolled-
up leaves
- H. linea, h.grasses, in rolled-up
blades
- S. populi poplar, sallow, wil-
low, &c.
- " tiliæ elm, lime, beech
- A. Atropos potato leaves; will
also eat "tea tree," jasmine,
ash, woody nightshade, snow-
berry, Lycium barbarum, elder,
thorn-apple, spindle, sweet pea,
&c.; hides under sods
- S. ligustri privet, lilac, ash,
holly, mountain ash, laurestinus,
gueider rose, evergreen oak, &c.
- D. euphorbia ...Euphorbia paralias
and cyparissias
- " galii Galium verum, and
G. elatum. (See last month's
note.) This species is s. found
on the sand-hills at Deal, from
the first battery Southwards, as
far as the large sand-hills ex-
tend, and from the sea West-
ward, for two or three hundred
yards
- C. celerio Galium, and vine
- " nerii oleander
- M. stellatarum ...Galium Mollugo,
growing on old walls, exposed
to the sun
- S. formiciformis, h. in osier stumps
- " muscæformis in stems of Statice
armaria
- " bembeciformis, h. in the stems of
poplar, and sallow
- apiformis, h. in poplar stems, &c.
- Z. asculi, h.in the wood of ash,
elm, pear, horse chesnut, &c.
- C. ligniperda ...in the trunks of large
trees of ash, willow, elm, &c.;
feeding on the wood, seldom
higher than 5 ft. from the ground.
They may be found during this
month, or the next, full-fed,
under the bark which is an inch
or two under the ground. If it
is desired to feed them up,
care must be taken not to put
them into a wooden, or even a
brick receptacle, as they will be

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- sure to eat, or force their way out. They are best kept in large flower pots, wide-mouthed bottles, or tin boxes, and supplied with fresh-cut, but not wet, chips, and sawdust of their food, or with decayed pieces, and covered with glass, or wire gauze, well secured. Keep a sharp look-out for mildew.
- H. hectus*, h. ...in r. of brake fern
„ *lupulinus*, h. ...in r. of dead nettle,
 &c.
- „ *velleda*, h. ...in r. of brake fern
humuli, h. ...in r. of various plants
- L. asellus*oak, beech, poplar
testudooak
- S. phegea*, h. ...doubtful native. On the Continent it feeds from this month to May, on dandelion, scabious, plantain, &c.; pupa under moss, and dried leaves
- L. aureola*, h. ...lichens, on oak, larch, &c.
„ *lurideola*, h....lichens
„ *rubicollis*.....lichens, on larch, &c.
- E. cibrum*, h. ...heath, bilberry
- C. Hera*, h.doubtful native. On the Continent it feeds from this month to May, on *Echium vulgare*, and various low plants
- „ *dominula*, h. *Cynoglossum officinale*, &c., on hilly places
- E. russula*, h. ...plantain, heath, &c.
- C. plantaginis*, h. violets, plantain, &c.
„ *caia*, h....nettle, and various plants
„ *villica*, h.chickweed, furze, sloe, and other plants
- A. fuliginosa*, h. dock, nettle, plantain, &c.
- L. chrysorrhæa*, h....hawthorn, sloe, blackberry, &c.
„ *auriflua*, h.sloe, hawthorn, oak, sallow, &c.
- „ *salicis*, h.poplar, willow, &c.
- O. pudibunda* ...hop, beech, hawthorn, nut, oak, &c.
- „ *fascelina*, h....on hedges, dwarf sallows, furze fl., heath, broom, and various trees, and plants
- O. gonostigma*, h. oak, sallow, nut, hawthorn, sloe, bramble, beech, &c.
„ *antiqua*.....various trees, and shrubs
- D. coryli*beech, nut, birch, alder, oak, willow. Sometimes, in confinement, the larvæ feed up, and emerge this month
- B. rubi*, h.bramble, heath, &c.; generally hibernates full-bred; s. buries in the ground, until the spring
- „ *roboris*, h. ...hawthorn, dogwood, bramble, broom, heath, ivy, &c.
- „ *quercus*, h. ...bilberry, &c. ; dog-wood preferred
- „ *trifolii*, h. ...trefoil, clover, broom, furze, &c.
- O. potatoria*, h. coarse grasses
- L. quercifolia*, h. bramble, sloe, sal-
low, willow, plum, &c.
- O. sambucata*, h. ivy, elder, holly, bramble, and other trees, and plants
- R. cratægata*, h. hawthorn, sloe
- V. maculata*nettle, and other plants
- M. margaritata*, h. oak, beech, birch, hornbeam, &c.
- E. fasciaria*, h.... Scotch fir ; rests closely pressed upon a twig
- E. dolobaria* ...oak, beech, birch, aspen
- P. syringaria*, h. lilac, privet, honey-suckle, elder
- S. illunaria*willow, ash, haw-thorn, oak, plum, &c.
„ *illustraria*oak, birch, ash, beech, maple
- O. bidentata*.....oak, sallow, nut, ivy, ash, sloe, &c.
- A. betularia*oak, elm, hawthorn, birch, beech, alder, mountain ash
- C. lichenaria*, h. lichens, on oak, park palings, &c.
- B. rhomboidaria*, h. ivy, birch, oak, plum, rose, lilac, elder, &c.

LARVÆ]

SEPTEMBER

- B. abietaria, h. larch, spruce, Scotch fir ; has been found on whortleberry ; will also eat birch, and oak
 " cinctariaheath. In confinement the impregnated females deposited their eggs, by preference, on sallow catkins
 " roboria, h. oak ; h. on a twig, which it much resembles
 T. crepuscularia larch, willow, poplar, elm, birch, alder, &c.
 " extersaria.....birch, beech, oak
 G. obscurata, h. thyme, sun cistus, Potentilla reptans, Poterium sanguisorba, &c. Feeds at night ; hides by day under r., stones, &c.
 D. obfuscata, h. heath, vetch, &c.
 G. papilionaria, h. nut, birch, alder, beech, &c. ; about the m. of this month, in the N., the larva fastens itself to a twig, for the winter
 I. vernaria, h.Clematis vitalba
 lacteariaoak, birch
 P. baiularia, h. oak
 E. porataoak
 " punctaria.....oak
 " trilinearia ...beech
 " omicronaria ..maple ; s. beech
 H. auroraria, h. plantain
 A. luteatamaple
 " Blomeraria ...wyttch elm ; in, or near hilly woods ; remains, on the under-side of the leaves
 E. heparata alder
 V. cambricaria ...mountain ash
 A. rubricata, h.——? will eat knotgrass, Lotus corniculatus, Medicago lupulina, Thalictrum minus, and the smaller Trifoliums
 " scutulata, h....Anthriscus sylvestris, fl., and dandelion, preferring the withered leaves
 " bisetata, h. dandelion; will also eat knotgrass, and withered bramble
 " contiguaria, h. Empetrum nigrum; will also eat hawthorn buds, and knotgrass
 A. rusticata, h....hawthorn; will also eat ivy, lilac, and withered bramble
 " osseata, h.dandelion, &c.
 " interjectaria, h. dandelion, scarlet pimpernel, withered
 " holosericata, h. sun cistus, withered
 " incanariadandelion, groundsel ; will also eat knotgrass
 " ornata, s., h. thyme, marjoram ; will also eat mint
 " promutata, h. yarrow, mugwort, " creeping cinquefoil
 " immutata, h. some marsh plant ; common in fens ; will also eat knotgrass
 " strigilata, h....Stachys sylvatica
 " emutaria, h....Triticum repens ; in salt marshes, on the coast ; will also eat Medicago lupulina, Lotus corniculatus, Chenopodium, mint, knotgrass
 " aversata, h.primrose, gooseberry, nut, Geum urbanum, &c.
 " degeneraria, h. ——? will eat bramble, knotgrass, Cerastium, Veronica. Occurs at Portland
 T. amataria, h.... dock, Polygonum, and various plants ; may be found on the underside of the leaves, adhering to the veins
 C. pusaria.....oak, nut, alder, birch, sallow, &c.
 " rotundaria ...birch, sallow
 C. temeratasloe, and wild cherry, and buckthorn?
 M. alternata, b. sallow, sloe
 " notata, b.sallow
 " liturata.....larch, and Scotch fir
 S. belgiaria, h....heath
 F. atomaria, h....Centaurea, trefoils, &c.
 " pinariaScotch fir, and larch
 " conspicuata...broom
 M. euphorbiata... Euphorbia cyparissias
 S. dealbata, h... grasses
 S. sacrariadock, chamomile, and other Composite ; will also eat knotgrass

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- A. ononariarest harrow [&c.
A. galvaria, h. Achillea millefolium,
A. ulmata.....wynter elm [lars
L. marginata ..sallow, willow, pop-
P. hippocastanaria, h. heath
L. caesiata, h. ... bilberry, whortle-
berry, heath
,, pectinaria ...Galium Mollugo, G.
sexatile ; very sluggish
E. alchemillata...Galeopsis ladanum,
G. tetrahit, Silene, Lychnis
,, unifasciata ...Odontites rubra
blandiataeyebright
E. centaureata ...ragwort, Angelica,
golden rod, &c.
,, succentureata... Achillea millefo-
lium, Artemisia, and Valerian
officinalis, seeds
,, subfulvata.....Achillea millefo-
lium, and chrysanthemum
,, subumbrosa ...Gentiana, Campan-
ula, and other fl., in, and near
beech woods
,, helvetica ...juniper
,, satyrataGalium, scabious,
and other fl., in, and near beech
woods
,, castigatagolden rod, heath,
nettle, Angelica, &c.
,, trisignataAngelica sylvestris,
fl., and seeds
,, virgaureata ...golden rod, fl.
,, albipunctata...fl., and seeds of An-
gelica sylvestris, Heracleum
sphondylium, and Lythrum
salicaria
,, pimpinellata. Pimpinellata magna,
and P. saxifraga (seeds); also
angelica
,, fraxinataash; will eat fl. of
laurestinus
,, annotata?Artemisia campes-
tris ; at Wallasy
,, constrictata...thyme
,, nanata, h. ...heath, fl.
,, subnotata....Atriplex, & Cheno-
podium, fl., and seeds
,, companulata ...seed-capsules, of
Campanula trachelium, and
other Campanulæ
- E. vulgata, 2. ...hawthorn, willow,
golden rod, ragwort, &c.
,, pallidata ...golden rod, fl. ; will
also eat Michaelmas daisy, &c.
,, absynthiata ...fl., and seeds of rag-
wort, Eupatorium cannabinum,
Artemisia vulgaris, Achillea
millefolium, golden rod, &c.
,, minutata, h. heath, fl., and sca-
biouss ; s. a cannibal
,, knautiata.....Knautia arvensis,
fl., and seeds
,, assimilata ...black currant (on
underside of the leaves), and
hop (on the leaves, and ♀ fl.)
,, exiguahawthorn, black
currant, barberry, ash, alder,
sallow, &c.
C. sparsataLysimachia vul-
garis, fl., and leaves
L. sexualatasallow, willow
T. juniperata ...juniper
Y. ruberata ...sallow, alder, bil-
berry, &c.
,, impluviata ...alder, sallow ; in
curled-up leaves ; does not
change into a pupa until Dec.
M. albillacina ...bramble, raspberry
M. tristataGalium Mollugo
,, procellata ...Clematis vitalba
rivate?Galium Mollugo
,, sociataGalium Mollugo
,, galiiata, b.Galium sexatile
,, fluctuata, b.cabbage, horse
radish, nasturtium, &c.
A. berberata, e. barberry
C. munitata, h. groundsel
,, propugnataprimrose? Cruc-
feræ? &c.
,, ferrugataNepeta glechoma,
Galium, chickweed
P. ternataClematis vitalba
lignata, h.Galium palustre, &c.
S. undulatasallow, poplars ;
between leaves
C. corylatasloe, lime, nut
,, suffumata, h. Galium Mollugo, and
ragwort
,, silaceatawillow herb (Epilo-
biuum), and Circæa lutetiana

LARVÆ]

SEPTEMBER

- P. comitataChenopodium
 E. lineolataGalium verum, on
 the coast ; will also eat G.
 sexatile, and G. Mollugo
 C. obliquaria ...broom
 P. lacerulabirch ; between
 united leaves
 " hamula.....oak, birch
 " unguicula.....beech
 D. bicuspisalder, beech, birch
 " furcula sallow, willow,
 poplar
 " bifidapoplars [nut
 S. fagibeech, oak, birch,
 C. bucephalaelm, oak, lime,
 beech, sallow, nut, &c.
 C. curtulapoplars, sallow
 " reclusabetween united leaves
 of sallows, poplars, willows
 P. palpinawillows, sallows,
 poplars, birch
 N. camelinaoak, beech, birch,
 maple, nut, alder, hawthorn,
 aspen, sallow, apple
 " cucullinamaple, sycamore
 " dictoreapoplars, sallow, wil-
 low
 " dictroides ...birch
 " dromedarius...birch, alder, nut
 " trilophusbirch, poplars
 " zizzacpoplars, sallow, wil-
 low, alder ; more frequently
 found than the imago
 T. Dodoneaoak, birch
 T. derasabramble, hawthorn,
 batis bramble, raspberry
 C. duplarisbirch ; between
 united leaves
 " fluctuosabirch ; between
 united leaves
 ocularispoplars
 R. glandifera, h...lichens on walls ;
 local. This species, and the
 next, build a cocoon of silk and
 earth, mortar, or crumbled
 stone, like a blister on paint,
 in which they live, except
 when they come out to feed,
 in the night, or early morning,
 especially in wet weather
- B. perla, h.lichens, on walls
 D. Orionoak, birch
 A. tridens.....hawthorn, sloe, rose,
 willow, sallow, mountain ash,
 &c.
 " psi.....hawthorn, poplar,
 pear, elm, lime, &c.
 " leporinabirch, poplar, alder,
 sallow
 " acerissycamore, horse
 chesnut, maple, birch, s. oak
 " strigosa, b. ...hawthorn; especially
 in chalky districts
 " alnialder, oak, lime,
 elm, beech, birch, sycamore,
 poplar, nut, willow, sallow,
 hawthorn, bramble, Spanish
 chesnut, horse chesnut, rose.
 Has been found, at rest, on
 palings, &c.
 " ligustris.....ash, privet ; seems
 to prefer shaded trees
 " auricoma, s., z. ?bramble,
 bilberry, birch, oak
 " myricæ.....Myrica gale, heath ?
 thistle? sallow, birch
 S. venosaGlyceria aquatica
 L. obsoletacommon reed, in
 marshes, and fens ; concealed,
 by day, in hollow stems
 S. ulvæ, h.common reed ; in
 marshes, and fens
 X. hepatica, h. grasses, chickweed,
 &c.
 D. pinastridock, sorrel, &c.
 L. exiguaplantain
 C. cytherea, h.grass ; in stony
 places
 M. brassicæcabbage, dock,
 Chenopodium, chrysanthemum,
 &c.
 " persicariae ...Polygommæ persi-
 caria, and other low plants ;
 also elder
 A. gemina, h. ...grasses
 " unanimis, h. grasses
 C. MorpheusSedum telephium,
 sallow, bramble, docks, teazle,
 &c.
 " alsines, h. ...chickweed, &c.

LARVÆ]

SEPTEMBER

- C. cubicularis, h. grasses, pulse, grain
 R. tenebrosa, h. violets, knotgrass,
 and other low plants
- A. Putadandelion, lettuce,
 carrot r., knotgrass, &c.
 " segetum, h.in r. of turnips, and
 other Cruciferae, &c.
 " lunigera? will eat knot-
 grass, &c.
 " exclamationis, h. r. of cabbage,
 grass, turnips, &c.
 " corticea, h.Chenopodium, &c.
 " cinerea, h.r. of low plants
 " ripæCynoglossum offici-
 nale, on the coast; burrows
 7 or 8 in. in the sand
 " Ashworthii, h. fescuegrass, hawk-
 weed, sun cistus, thyme, heath,
 harebell, &c.
- N. augur, h.low plants, haw-
 thorn, sallow, &c.
 " nigrum, h.pea stems, and low
 plants
 " rhomboidea, h. chickweed, sallow
 " festiva, h.violet, sallow, fox-
 glove, &c.
 " Dahlii, h.various low plants
 " umbrosa, h.dock
- D. carpophaga, s.Lychnis, and
 Silene inflata, the young seeds
 " capsophila ... Silene maritima,
 and S. inflata
 " capsincola ...Lychnis, and Silene,
 seeds
 " conspersa.....Lychnis flos cuculi,
 and Silene inflata, seeds
- E. luciparabrake fern, & Poly-
 podium filix-mas; also sallow,
 nettle, primrose, plantain, dan-
 delion, &c.
- A. nebulosa, h. birch, sallow, haw-
 thorn, &c.
 " tincta, h.birch, grass, and
 low plants
 " advena, h.lettuce, knotgrass,
 and various plants
- H. adusta, h.sallow; also low
 plants, and hawthorn; the larva
 hibernates full-fed
 " chenopodii ...Chenopodium
- H. atriplicis ...Chenopodium, dock,
 Polygonum persicaria, &c.
 oleraceaelm, nettle, dock,
 cabbage, &c.
 " pisibrake fern, broom,
 sallow, birch, mountain ash,
 scabious, Carex, grass
 " contiguabirch, oak, nut, &c.
 " genista.....broom, chickweed,
 Silene, knotgrass, &c.
 " rectilinea, h. sallow, bilberry,
 bramble
- C. lychnitisseeds of white, and
 black mullein
- " asterisgolden rod, Trifo-
 lium vulgare, and China aster
- " absinthiiwormwood
- " umbratica.....Sonchus, lettuce
- H. dipsaceaLinaria, fl.; also
 Silene otites, seeds
- A. myrtilli, s. h. heath
- E. fusculalavender grass (*Mo-*
 linia cærulea). May be found
 feeding, at night, about half way
 up the blades of grass
- A. urticænettle
- " triplasianettle, hop
- P. chrysitis, h.*Lappa*, thistle, net-
 tle, dead nettle, &c.
- " gamma.... nettle, hop, and
 most low plants
- M. typica, h.dock, low plants,
 &c.; gregarious until after h.
 " maura, h.dock, chickweed,
 ivy, &c.
- P. ænea.....*Polygala vulgaris*
- H. crassalisheath
- S. emortualis ...oak
- H. derivalis, h. sallow, and bramble
- " barbalis, h.oak; afterwards,
 birch catkins
- " tarsipennalis, h. wild raspberry?
- " will eat knotgrass, and sallow
- " grisealis*Sisymbrium Sophia*,
 oak, &c.
- P. punicealis.....*Nepeta cataria*, fl.-
 heads
- R. sanguinalis ...thyme, fl.
- E. cingulalis h. *Salvia pratensis*,
 under the leaves

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SEPTEMBER

- B. lancealis*Eupatorium canabinum, Senecio, Sium latifolium, &c.*
- " terrealis, h.golden rod, fl., &c.; hibernates nearly, if not quite, full-fed
- " urticaenettle
- E. sambucaliselder, convolvulus ; may be found hiding, among the corymbs of elder
- P. forficaliscabbage, horseradish, &c.
- S. palealis.....wild carrot, and *Peucedanum* ; in a web, within a fl.-head, of the umbels
- A. farrella ...*Anthyllis vulneraria*, fl.
- H. nimbella ..chamomile
- " nebulella.....heads of thistles ; also *China aster*
- " saxicolafl.-heads of chamomile
- C. bistrigella ...alder, between the leaves
- P. interpunctella on grain, figs, dried insects, &c. ; in corn, and seed, and grocers' warehouses, &c.
- N. angustella ...fruit of spindle
- G. canella, b.*Salsola kali* ; mines the stems, when young ; afterwards, feeds on the unripe seeds
- P. adelphella ...poplar, willow
- " abietella, h.young shoots of Scotch fir, and decayed wood, and cones
- P. palumbella, h. *Polygala*
- R. formosella ...elm, birch
- M. alveariella ...wax in beehives ; some hibernate, and others emerge next month
- T. viburnana ...*Myrica gale*, and *Vaccinium*
- " ministrana ...willow, nut, birch, buckthorn
- L. scabrinaelm
- P. Hastianadwarf sallows, and hawthorn
- " umbranapoplar, sallow, hornbeam (?)
- P. tristana.....guelder rose
- A. Conwayana...fruit of privet, nut? ash?
- P. prælongana ...birch
- " dimidiata ...*Myrica*, birch, sallow
- " marginana ...teazle, and probably seed-heads of Composite
- M. Ratzeburgiana ? Scotch fir
- " consequana ...*Euphorbia paralias*
- C. musculana ...hawthorn, &c.
- P. myrtellana ...*Vaccinium*
- " lundanatrefoils, and vetches
- " derasana*Rhamnus frangula*
- " Mitterpacheriana elm, oak
- " upupana (?) ...oak, birch
- G. nigromaculana ragwort
- " campoliana in sallow leaves
- " geminana.....*Vaccinium* ; s. apple
- P. tetraquetrana in leaves of birch
- " crenana?sallows, willows
- P. oppressana ? poplar
- E. cirsiana, h.in thistle, and knapweed stems ; in woods
- " Pfulgiana, h. in thistle, and knapweed stems ; in open places
- " nigricostana, h. *Stachys*, r.
- " trigeminana ...ragwort
- S. ianthinana ...hawthorn berries
- " rufilanaumbels of wild carrot
- C. vacciniana ...*Vaccinium*, and *Berberis*
- P. mercuriana ? *Dryas octopetala*
- C. splendana ...in acorns ; to be collected as soon as possible, and kept cool ; also walnuts
- O. grossanain beech nuts
- O. funebrana ...in plums
- E. pisanain pea pods, and vetches
- S. Weiranabeech
- " redimitana ...oak
- " germarana ...in plums
- " roseticolana...hips of roses
- " orobanain pods of *Vicia cracca*, *V. sylvatica*, *Orobus tuberosus*, and *Genista tinctoria*
- D. plumbana ... pods of vetches ? &c.
- " plumbagana *Achillea millefolium*

LARVÆ]**SEPTEMBER**

- P. Rheediana wild plum, and
apple
- C. Juliana? acorns
- " microgrammana? Ononis?
- " fulvana heads of *Centaurea*
scabiosa
- " Hohenwartiana knapweed, and
thistle
- " scopoliana ... *Centaurea*, heads
- " citrana *Artemisia campestris*
- E. dubitana *Hieracium*, fl., and
other Composite
- " atricapitana...stems of ragwort
- " maculosana? raspberries?
- " hybridellana thistle, and ragwort,
seeds
- " notulana? ... mint, stems
- C. tesserana, h. in r. of *Picris hieracioides*
- A. badiana in stems, and r. of
burdock
- " maritimana...in stems, and r. of
Eryngium maritimum
- C. dilucidana ... in stems of parsnip
- " stramineana...*Centaurea*, heads
- " alterna *Centaurea scabiosa*,
heads
- " inopiana in r. of *Artemisia campestris*
- T. hyemana hawthorn
- L. salicella dog rose; between
united leaves
- D. fagella.....on most trees;
between united leaves
- E. Steinkellneriella hawthorn, moun-
tain ash, sloe, &c.; between
turned-down leaves
- T. misella.....in dried stems of
beans, and unthrashed wheat
- " bistrigella.....birch
- L. prælatella, h. in a flat case, on
underside of wild strawberry
- I. muscalella, h. rose, &c.
- A. fibulella in a flat case, on
leaves of *Veronica chamaedrys*
- " rufimittrella ... *Cardamine pratense*
- N. scabiosellus, h. various low plants
- " cupriacella, h. various low plants
- S. comptella.....sloe, and plum
- S. cæsiella hawthorn, and apple
- " griseocapitella birch
- " lutarella hawthorn
- " pyrella hawthorn, apple,
pear, &c.
- Y. virginipunctella *Sedum telephium*
- A. decemguttella *Lithospermum*
- P. xylostella.....turnip, &c.
- E. lobella under turned-down
sloe leaves
- D. depressella ...seed-heads of wild
carrot
- G. malvella hollyhock, seeds
- " ericetella, h. *Erica cinerea*, E.
tetralix, and *Calluna erica*
- " acuminetella in thistle leaves
- " aleollamoss
- " tenebrella, h. in r., and lower
stem of *Rumex acetosella*
- " lathyrella.....?
- " notatellasallow
- " atriplicella *Atriplex*, and *Cheno-*
podium, seed heads
- " triparella oak, between united
leaves
- " nigricostella... lucerne, between
united leaves
- " intaminatella *Lotus corniculatus*
- P. lappellaknapweed, and bur-
dock, seeds
- M. fasciellasloe
- " ustulella, h.... nut, birch, lime,
maple, hornbeam, &c.
- CE. flavimaculella *Angelica*, seeds
- " stipella.....under bark of dead
fir trees
- " flavidrontella, h. in a case, on beech
- B. torquatella ...birch, elm
- " incongruella...*Erica*, and *Calluna*
- T. stanneella ...oak
- " resplendella...alder
- G. alchimiella .. oak
- " Kollarialiellamining leaves of
broom
- " stigmatella sallow, willow,
poplar
- " syringella.....privet, lilac, ash
- " omissella*Artemisia vulgaris*
- " phasianipennella *Polygonum*
hydropiper, and sorrel

LARVÆ]

SEPTEMBER

- G. auroguttella... willow herb, and *E. tenuatella*, h. *Brachypodium*
Hypericum
imperialella *Sympytum officinale* " *Megerlella* *Brachypodium*,
O. avellanella ...nut *Bromus*, *Aira*, &c.
 " *anglicella*hawthorn, sloe *T. complanella*...oak
 " *betulevorella* birch " *angusticolella* rose
 " *scutulatella*? birch " *L. hortella*oak
 " *torquilella* ...sloe " *lantanella*, h. *Viburnum lantana*;
 " *Scoticella*....mountain ash " best collected in Nov.
 " *Loganella* ...birch " *quinqueguttella* dwarf sallows
 " *guttella*.....apple, in turned- " *irradiella*oak
 down leaves " *Bremiella*.....vetches
 G. atriplicivorella, h. *Atriplex* " *laetella*.....oak
 C. paripennella in a case, flat, on " *cavella*.....birch
 leaf of birch, rose, sloe, " *pomifoliella*...apple, hawthorn
 bramble, &c. " *coryella*nut, birch
 " *saturatella*, h. broom " *spinicolella* ...sloe
 " *infatella**Silene inflata*, seeds " *faginella*beech
 " *therinella*....thistles " *torminella* ...*Sorbus torminalis*
 " *cæspititiella*, h. rushes, seeds " *salicolella*....sallow
 " *annulatella* ...seeds of *Atriplex*, " *viminetella* ...osier
 and *Chenopodium* " *carpinoœlla* hornbeam
 " *argentulella* ...seeds of yarrow " *ulmifoliella* ...birch
 " *virgaureella*...seeds of golden rod " *spinolella*....sallow, willow
 " *laricella*, h.larch " *quericfoliella* oak, willow
 " *fuscocuprella*, h. nut " *corylefoliella* hawthorn
 " *gryphipennella*, h. rose " *Caledoniella*...hawthorn, birch
 " *viminetella*, h. sallow, and osier " *viminiella*.....osier, sallow
 " *artemisicolella*, h. fl. of *Artemisia* " *ulicolella*furze
 " *vulgaris*, and *A. campestris* " *almifoliella* ...alder
 " *meliolotella* ...seeds of melilot " *Heegeriella* ...oak
 " *Wilkinsonella* birch " *Cramerella* ...oak
 B. somnulentella *Convolvulus* " *tenella*hornbeam
 S. pedella.....in fruit of alder " *acerifoliella* ...maple
 C. Druriella.... hop " *emberizæpennella* honeysuckle
 " *orichalcella* ...in leaves of *Festuca* " *Frolichiella*...alder
 arundinacea " *Nicelliella* ...alder
 " *Lienigiella* in leaves of " *Stettinella* ...alder
Phragmites communis " *Klemannella* alder
 C. chærophyllella, b. most Umbel- " *Schreberella* elm
 lifera " *tristrigella* ...elm
 " *daucella*? ...wild carrot " *trifasciella* ...honeysuckle
 L. atra hawthorn berries, " *comparella* ...poplar
 and shoots of apple " *L. Clerckella* ...sloe, apple, cherry,
 C. flavicapitella, h. in twigs of haw- hawthorn, &c.
 thorn, in which it bores P. *salignella*willows
 A. profugella ...gentian, seed C. *laburnella* ...laburnum
 " *terminella*... *Circæa lutetiana* " *scitella*.....hawthorn, apple, &c.
 A. Treitschkiella dogwood " *Wailesella* ...*Genista tinctoria*
 F. cinereopunctella, h. *Carex glauca* B. *cidariella*.....alder

LARVÆ]

SEPTEMBER

B. ulmella	oak	N. arcuosella ...strawberry
" Demaryella ...	birch	" gratirosella ...hawthorn
" frangulella ...	buckthorn	" marginecolella elm
" cristatella, h.	yarrow	" alnetella .....alder
N. intimella.....	sallows	" glutinosella ...alder
" subbimaculella	oak	" continuella ...birch
" trimaculella...poplar		" splendidissimella ...bramble, and
" floslactella ...nut,	hornbeam	dewberry ; rarer in wild raspberry
" salicivorella ...sallows		" luteella.....birch
" myrtilella ...bilberry		" regiella.....hawthorn
" microtheriella nut,	hornbeam	" tilælla.....lime
" betulicolella...birch		P. zophodactylus Erythræa centaurium
" ignobilella ...hawthorn		" pterodactylus convolvulus
" argentipedella birch		" tephradactylus, h. golden rod, in
" acetosella.....sorrel		shady places
" plagicolella ...sloe		" serotinus .....Galium Mollugo
" prunetella ...sloe		" osteodactylus, h. golden rod
" tityrellabeech		" microdactylus Eupatorium canna-binum
" malella.....wild apple		
" angulifasciella rose		
" atricolella.....apple, hawthorn		

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All who are bent upon doing "the right thing," as regards pupæ, should not fail to study the Rev. Joseph Greene's "Insect-Hunter's Companion." To that gentleman we are indebted for, many years ago, raising the operation of obtaining subterranean pupæ to the dignity of an art. This is the month recommended for a commencement, in earnest, of this work, as a large number of summer, and autumn species have pupated, and other collecting work is on the wane ; while it is desirable to get early possession of pupæ before mice, birds, flooding, &c., exercise their destructive influence. The pupæ-hunter is rewarded with specimens in the finest condition, and often with interesting varieties. Most subterranean pupæ are to be found at from 1 in. to 3 in. in depth, close to, or not far from, their food-plants ; some species, however, in a light soil go much deeper, particularly A. Atropos, P. Cassinea, T. populeti, C. vetusta, and C. exoleta. Sandy, or gravelly soils are the most favourable for those species which "go to earth ;" and they are seldom found in sticky, or clayey soils, or if so, not far from the surface, if not amongst the first superficial layer of rubbish. The roots of grass, &c., afford a favourite hiding-place to many. Those species which spin up, do so either on, or near, or just beneath their food-plants ; or among grass, moss, or rubbish ; or on palings, walls, &c., contiguous. So that, as in the case of subterranean pupæ, an abundance of the food-plant peculiar to a species, may sometimes guide us to a successful search.

When pupæ are obtained, they should be preserved in as natural conditions as possible, and should not be exposed to sunshine, or kept in the dry air of a living room. An outhouse, or cellar is to be preferred ; but they must be protected from spiders, mice, beetles, &c., and should be kept in sufficiently

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open cages to allow of the free expansion of wings, and of ready examination of the imago on emergence. Too much damp must be guarded against, or mould will exercise a fatal effect. Although emergence may be looked for, often with surprising certainty, at the exact time the imago is due, a warm season will hasten, and a cold one will retard, the period; and some species will remain in pupa for many years, a portion, only, of the same brood, appearing in successive years. Mr. Doubleday suggests that this may often cause the non-appearance of a species, for several years. Among those which, sometimes, remain more than one year in pupa, besides those mentioned in the lists are *S. carpini*, *B. rubi*, *B. callunæ*, *B. roboris*, *N. camelina*, *N. cucullina*, *N. dictæa*, *N. dromedarius*, *N. ziczac*, *N. Chaonia*, *N. Dodonea*, *E. unifasciata*.

- | | | | |
|----------------------|--|---|---|
| P. Machaon | on stems of <i>Peucedanum palustre</i> ; in fens | O. bidentata ...to April, under moss,
on various trees | |
| P. brassicæ | <i>rapæ</i> } to April, on palings,
" napi } walls, &c. | H. pennariasub., at oak | |
| V. c-album, b.... | among nettle, and
on walls, &c. | P. pilosariato Dec., sub., at
oak, and elm | |
| " cardui | on, or near thistles | N. zonariasub., on sand-hills
" hispidaria ...at oak | |
| N. Lucina..... | attached to leaf-
stalk of <i>Primula</i> | B. hirtariato Mar., sub., at
elm, lime, ash, and fruit trees | |
| S. populi | to April, sub., at r.
of poplar, willow, &c. | A. prodromaria sub., at oak, elm,
&c.; just beneath the surface | |
| M. fuciformis | to April, in a loose
web, among <i>Lychnis</i> , <i>Scabiosa</i> ,
&c., on the surface | H. abruptaria ...to April, spun up,
on twigs, or between the forks,
or beneath the branches, of
lilac, rose, or privet | |
| A. mendica | to May, under moss,
on trees, and on the ground | N. viridatato April, between
united leaves of hawthorn, or
bramble | |
| " lubricepeda | ...to May, spun up, on
trees, palings, &c. | E. poratato May; fastened to
leaf of oak | |
| " menthrasti | ...to May, spun up, on
trees, palings, &c. | " punctaria.....fastened to leaf of
oak, or birch | |
| O. pudibunda | to April, in dead
leaves, under moss, &c. | " trilinearia ...to April; fastened
to leaf of beech, the margin of
the leaf often curling over, and
concealing the pupa | |
| " antiqua | from July, in a web,
on palings, &c. | " pendularia .. fastened to leaf of
birch | |
| P. populi | spun up, against
oak, poplar, &c.; near, or just
beneath, the ground | C. temerata | to April, in slight
cocoon among sloe, and wild
cherry, and probably buck-
thorn |
| E. lanestris | cocoon on the
ground, near hawthorn, &c.; s.
more than one year in pupa | N. pulveraria | to April, in withered
sallow leaves, &c. |
| E. versicolora | spun up, among
fallen leaves, at birch; s. more
than one year in pupa | F. carbonaria | to April, among dead
leaves of sallow and birch, on
the ground |
| S. illunaria | to March, sub., at
willow, oak, &c. | | |
| " lunaria | at sloe, oak, nut, &c. | | |

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- L. adustata*to April, in a slight cocoon, just beneath the surface; among spindle
- H. rupicaparia* in a web, on the ground; among oak, sloe, &c.
- " *leucophearia* on the ground; near oak
- " *aurantiaria* ...sub., at hawthorn, birch, oak, &c.
- " *progemmaria* sub., at oak, birch, hornbeam, &c.
- " *defoliaria* sub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
- C. brumata*sub., at oak, &c.
- L. multistrigaria* sub., about *Galium*
- E. decorata*about *Lychnis dioica*
- E. venosata*about *Silene*, and *Lychnis*
- " *consignata* ...to April, probably under moss, and loose bark, in apple orchards
- " *linariata* ...to April, among yellow toadflax
- " *pulchellata* ...to April, among the seeds, and dead fl. of foxglove
- " *isogrammata* to May, about *Clematis vitalba*
- " *fraxinata*to April, on ash; under moss, and loose bark
- " *nanata*to May, about heath
- " *vulgata*.....sub., about various plants, and trees
- " *expallidata* ...to June, about golden rod; s. more than one year in pupa
- " *minutata*to May, about heath
- " *assimilata* ...to April, in crevices; about currant, and hop
- " *exiguata* ...about oak, &c.
- " *dodoneata* ...about oak; s. more than one year in pupa
- L. viretata*to April, in spun-up leaves of privet
- M. ocellata*among *Galium*; spun up, near the ground
- M. substristata* ...to April, sub., near *Galium*
- " *galiata*to May, sub., near *Galium*
- A. badiata*in earthen cocoon, on the ground, beneath dog rose bushes
- " *derivata*sub., at dog rose
- C. fluviata*spun up, in moss, &c.
- C. psittacata*.....spun up, among rubbish at r. of oak, lime, apple, rose
- " *miata*at r. of oak, alder, birch, poplar, willow; on the surface, among grass, &c.
- " *picata*to May, in a slight cocoon, on the surface, among, or near chickweed
- " *sagittata*to June, spun up, about *Thalictrum*, or on the ground, near ; in fens
- C. obliquaria* ...among broom
- D. furcula*to May, spun up, on trunk of willow, or sallow
- " *bifida*to April, spun up, on trunk of poplars
- " *vinula*spun up, on trunk of willows, poplars, and sallow; 3 ft. or 4 ft. from the ground
- P. Cassinea*sub., at oak, deep
- C. curtula*to Mar., spun up, between dead leaves of poplars, and sallow
- N. carmelita*sub., at birch
- " *trepida*to April, sub., at oak; cocoon tough, but not always coated with earth; s. more than one year in pupa
- " *Chaonia* to April, sub., at oak
- C. or*at birch, among dead, or united leaves
- " *ocularis*.....at poplars; near the surface of the ground, or spun against the tree
- " *flavicornis* ...to Feb., between united birch leaves
- A. megacephala* to April, under loose bark of poplar
- " *alni*between leaves of various trees; or inside bramble sticks
- N. typhae*, b. ...in stems of *Typha latifolia*

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- G. flavago*.....inside thistle, and burdock stems, about 3 in. from the ground
- T. piniperda*.....at Scotch, and other firs; in open places in fir woods, and on the margin; in crevices of bark, or under moss, and fallen needles; rarely within 2 ft. of the tree; 1½ in. to 2 in. deep
- T. gothica*at various trees; just beneath the surface
 " *leucographa* } at r. of low plants;
 " *rubicosa* ... } below the surface
 " *instabilis* ... } at r. of various trees;
 " *stabilis* } just below the surface
 " *opima*at r. of *Rosa spinosissima*, and dwarf sallow; below the sand, on sand-hills, in the N.
 " *populeti*sub., at poplars, especially *Populus nigra*; deep
 " *gracilis*sub., at willows, sallows, and low plants
 " *miniosa*among fallen leaves, &c.
 " *munda*under moss, at base of oaks
 " *cruda*sub., at oak
O. macilentata ...sub., in an oval cocoon, at beech, and birch
- H. serena*to May, sub., near *Sonchus*, and lettuce
- A. Aprilina*, b....sub., at oak
H. glaucato May, sub., near sallow, and birch
 " *oleracea*to April, sub., near elm, nettle, dock, &c.; also in kitchen gardens
 " *thalassina*to May, sub., near honeysuckle, sallow, broom, &c.
- C. verbasci*to April, in a large tough, earthen cocoon, below the surface; near mullein, and figwort
- " *lychnitis*to April, in an earthen cocoon, near white, and black mullein; s. 2 yrs. in pupa
- " *asteris*to April, near golden rod, &c.; s. 2 yrs. in pupa
- " *gnaphalii*to April, near golden rod
- " *absynthii*to April, near wormwood
- " *chamomillæ* near chamomile, &c.
- " *umbratica* ...to May, sub., near *Sonchus*, &c.
- H. marginata* ...sub., near *Ononis procurrens*
- A. myrtilli*spun up, in heath
- B. argentula*to May, among grass, on the ground
- B. parthenias* ...to Mar., at birch, in crevices of bark, or on the ground
- P. pterodactylus* on *Convolvulus*

IMAGOS]

Although the freshly-emerged species this month, are not numerous, many of them are very local, or rare. *L. Bœtica*, which has occasionally been taken recently, may possibly be found more frequently if diligently sought for, as it may have been overlooked among the common *L. Alexis*. *S. convolvuli*, *D. lineata*, and *C. celerio* occasionally come to flowers, and have been taken at rest in strange places, and on strange substances. The beautiful *D. pulchella* should be sought for in the day time in stubble-fields. *S. sacaria* is also a day-flyer, but frequents no special locality. The grand blue underwing, *C. fraxini*, has been found at rest. Some of the hibernating species, which may be found this month, are also rare. The bait of sugar should be continued to be employed this month, until the ivy blossoms come out. On hills, and in sunny spots, these blossoms expand much earlier than in colder, and damper situations.

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The Collector may be reminded that the character of the locality he is working, and the nature of the species he is seeking, must largely determine his method of search and capture, not forgetting the fact that however far Moths may fly, they generally return, for rest, to, or near, what were their food-plants when larvae. All kinds of places form a harbour for insects. The beating-stick should be energetically applied to heaps of dry rubbish, masses of grass, reeds, weeds, &c., tangled under-growth, haystacks, and thatch (the latter harbours many *Depressariae*, &c.); while "scarecrows," tree-trunks (especially those exuding sap), leaves, flowers, blackberries, fallen fruit, palings, posts, fences, walls, heaps of stone or sticks, logs of wood, outhouses, eaves, &c., all furnish lodgment-space, and a means of concealment, to various species, and should be vigilantly scanned. Indeed, vigilance is especially required, for many species closely resemble the substances on which they are in the habit of resting.

"Second appearances" are this month becoming more common than before. Among the Sphinges and Bombyces, especially, it is not unusual to find two series of transformations in the twelve-months; but by a wise provision of nature, the development of a portion of the brood is sometimes retarded. With some of the Geometrinae three broods are regularly obtained in confinement; while some of the Bombyces, Psychidae, and Coleophorae, require twenty-four months, and even more, to enable them to complete their round of metamorphoses. And sometimes even the date of their advent in the winged state is further delayed by their remaining in the chrysalis state for two, or three, and sometimes as many as four, or five seasons.

- | | |
|--|--|
| G. rhamni, h. ....woods, &c. | A. Atropos .....at rest, on palings, &c. |
| C. Edusa, h. ....clover fields, railway banks, &c. | S. convolvuli ...at fl., at dusk |
| " Hyale, h. ....in clover fields, &c. | D. euphorbiae, m. on the coast |
| A. Latona .....fields, woods, &c. | " lineata .....at fl., at dusk |
| V. c-album, 2., h. at blackberries, and fl.; may be found hanging to underside of leaves, in dull weather | C. celorio .....at fl., at dusk |
| " urticæ, h. | M. stellatarum, 2., h. at fl.; flies by day, and in the evening, and s. at moonlight |
| " polychloros, h. about elms | D. pulchella .....in stubble fields; a day flyer |
| " Antiopa, h. ....attracted by ivy fl., and cossus-infected trees | C. plantaginis, s., 2 |
| " Io, h. ....at fl. | O. antiqua |
| " Atalanta, h. ....at fl., and fallen fruit, in orchards | D. coryli, s. |
| " cardui, h. ....at fl. | T. crataegi .....comes to l. |
| C. Pamphilus ... | R. crataegata, 2. hedges, &c. |
| P. Phleas .....at fl.; at rest, on sorrel, &c., at night | E. alniaria |
| L. Boetica | " tiliaria .....comes to l. |
| " Alexis .....at fl.; may be found on cold, windy days, and at night, at rest, on grass stems, &c., in hollows, on hills | " fuscantaria ...comes to l. |
| | " erosaria |
| | " angularia .....on trees; comes to l. |
| | H. pennaria |
| | N. zonaria |
| | P. baiularia, s....a second brood s. appears in confinement |

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- A. promutata, 2.
 " immutata, s., 2.
 S. Sacariaflies by day; has been taken at fl., at sugar, and l.
 O. dilutata
 " filigrammaria
 T. variata, h.
 " firmata.....
 M. galiata, 2.
 C. fluviata, h.comes to l.
 P. polygrammata damp meadows; very local
 C. psittacata, h. comes to l.
 " miata, h.
 " picata, 2.s. in confinement
 " immanata ...
 E. cervinaria ...
 A. plagiata, 2....
 C. spartiata
 P. lacertula, s., 2. beaten, from birch
 P. bucephala ...at rest
 D. cæruleocephala at light
 T. batis, 2.
 C. diluta
 B. algæ
 A. psi, s.
 " alni
 L. vitellina
 " albipuncta ...at fl.
 " extranea ...on scabious fl.
 " l-album
 N. fulvas. abundant in one corner of a meadow
 " typhæin marshes
 " lutosain marshes
 G. flavago, s.
 H. nictitansat ragwort, and thistle fl.
 " petasitisamong butter burr
 micaceacomes to l.
 A. Australis.....among grass; comes to l.
 H. popularis, b. comes to l.
 hispida
 C. graminis, b. on commons; s. at ragwort, and thistle, fl.
 L. testaceacomes to l.
 " cespitis.....hides in grass, by day; comes to l.
 M. literosa
- C. Haworthii ...
 C. cubicularis ...hides in thatch
 A. Puta, h.
 " suffusa, h. ...
 " saucia, h. ...at ivy; comes to l.
 " agathinabeaten, from heath, in the day time; flies over the fl., and rests on them, at night
 " præcox.....on sand-hills, by the coast
 N. glareosaon heaths
 " c-nigrumcomes to l.
 " Dahlia
 " neglectaon heaths
 O. lotaat fl., at night
 " macilenta.....at ivy, and yew berries
 A. rufinaat ivy
 " pistacinaat ivy
 " lunosacomes to l., and ivy
 " lituraat ivy
 C. vaccinii, h. ...at ivy
 " spadicea, h. ...at ivy
 " erythrocephala, h.
 S. satellitia, h....at ivy
 D. rubiginea, h. at ivy, and yew berries
 H. croceago, h. at fl.
 X. citragoat l., and ivy; this, and the two following, may be found on the leaves, and twigs of lime trees, at night
 " cerago
 " silago
 " auragoat ivy
 " gilvago.....at fl.
 " ferruginea.....at fl.
 C. xerampelina...at l., and at rest, on ash trunks
 T. retusacomes to l.
 E. fulvago, b. ...at heath fl.
 E. ochroleuca, b. at fl.; rests on knapweed, and thistles, &c.
 P. chi.....on tree trunks
 " xanthomista...
 " flavocincta ...at ivy; rests on walls, &c.
 D. templi, e., h. usually found by turning over stone-heaps, in elevated districts; comes to l.

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- E. luteula, b....at heath fl.
 " nigra.....at ivy
 " licheneaon the coast
 M. oxyacanthæ...at fl.
 A. Aprilina
 P. meticulosa, 2, at ivy
 " empyreaat ivy
 A. occultaat rest, early in the morning; unquiet when boxed
 H. protea.....on tree trunks
 " peregrina.....
 C. solidaginis ...at rest
 C. vetusta, h....at ivy
 " exoleta, h....at ivy
 X. lambda, e.... [trunks
 " furcifera, h....at ivy, and on tree
 " rhizolitha, h, at ivy, and on tree trunks
 " semibrunnea, h, at ivy
 " petrificata, h, at ivy
 H. marginata ... [herbage
 " peltigeramay be started from
 " armigeraat ivy
 A. luctuosaflies in the sunshine, over fl., in clover fields, &c.
 P. gamma.....
 G. libatrix, h...in cellars, and on palings, trees, &c.
 A. pyramidæ ...
 " tragopogonis hides in windows
 S. anomalaat heath fl., and flying along hedgerows, at night; remains fine but a very few days after emergence
 C. fraxiniat rest on walls, &c.
 " nuptaat rest, on walls, tree-trunks, &c.; soon alarmed when approached; comes to l.
 H. rostralis, h...in gardens, &c.
 H. tarsipennalis, 2. woods
 P. fimbrialiscomes to l.
 " farinalis 2?at rest in, and near stables, corn stores, &c.
 " glauccinalis ...beaten from thatch; also at l.
 B. asinalis, 2.comes to l.
 E. catalaunalis...at fl.
 S. ferrugalisat fl., and sugar; flies at dusk, and can be beaten from hedges
- S. decrepitalis, 2?
 S. hybridalis, 2. among grass, and clover
 S. murana.....among heath
 " coarctalis, h, on mossy walls
 E. ocellæa, b., h. comes to l.
 C. tristellus
- T. Pryorella.....
 E. ficellain corn, and seed warehouses, among oilcake, &c.
 N. angustella, 2
 M. cephalonica
 N. genistella, h. Ulex europeus
 G. cerella
- S. Revayana, h. woods
 L. literanaon oak trunks
 " scabrinaamong elm
 P. sponsanawoods
 " variegana ...hedges
 " cristanaamong sallows, and hawthorn
 " Hastianaamong sallows
 " macanna
- " umbrana
- " ferrugana.....woods
 " tristana
- " lipsiana
- " comariana ...boggy heaths, & fens
 G. neovanaamong holly
 P. crenana, h ...on most Northern heaths
 P. ophthalmicana among aspens
 " occultanaamong young firs
 " Solandriana...
 " sordidanaamong alder, infens, and marshes
- E. bimaculana ...woods
 R. pinicolana ...among Scotch fir
 D. acuminatana
 C. ulicetanaamong furze
 X. Fabriciana ...
 " pariana
- E. anthemidana, 3. chalk districts
 L. phryganella ...
 T. pellionella ...common, in houses
 " fuscipunctella
 " pallescentella in warehouses, and poultreer's shops
 Y. evonymella ...among Prunus padus
 H. radiatella, h.

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- Y. sylvella
 " asperella among apple
 H. scabrella.....among crab apple ;
 rests on tansy fl., at dusk
 P. caudella, h....among Eunonymus
 europaeus
 D. pallorella, h. among brushwood
 umbellella ...among furze
 " arenella, h.
 " propinqua, h.
 " subpropinqua, h.
 " alstræmeriella, h. among Conium
 cinfionella, h. Rannoch
 " vaccinella, h. Lytham
 " capreolla, h.
 " hypericella ...among Hypericum
 conterminella, h. among sallows
 " angelicellaamong Angelica
 sylvestris
 " ocellellaamong sallow
 Yeatesiella ...in fens, &c.
 " applanella, h.
 " ciliella, h. [vulgaris
 granulosella... among Anthriscus
 rotundella ...Howth, Lancashire,
 Folkestone, &c.
 " albipunctella, h.
 " chaerophyllivorella, h.
 " nervosella ...
 " badiella
 " discipunctella
 " heraciella, h.
 " olerella..... near Hazlemere,
 beaten from thatch
 G. hippophaella
 cuneatella ... [slack
 " LyellellaCastle Eden, Wither-
 celerellaon coast sand-hills
 " costella..... among Solanum
 dulcamara
 " vicinellaBelfast, Brighton
 " junctellaWitherslack, Lake
 District, &c.
 " Hubnerella ...Carlisle, nr. Wake-
 field, Manchester, &c.
 " paupella near Lewisham,
 Folkestone, Lewes
- C. conscriptella .. Witherslack
 B. chenopodiella
 A. betulella ... Castle Eden, and
 High Force ; beaten out
 R. Erxlebenella, b.among lime
 underwood
 A. semitestacella, b. among beech
 " spiniella, b.among mountain
 ash, on moors
 Z. fasciapennella the Pentlands
 G. stigmatella ...among willow, &c.
 " stramineella...Castle Eden, Lake
 District, and Stirlingshire
 " hemidactylella
 " falconipennella near London
 " semifasciella
 " populetella, h.
 " elongella among alder, and
 yew
 " phasianipennella, h.
 " ononiellaCambs, Mickleham
 C. Brogniartella Yorks, Lake
 District, Cambs
 " cuculipennella, h. among privet
 " citrinella, b.
 B. somnulentella
 L. epilobiella, h. among Epilobium
 hirsutum
 " decorella, h. among Epilobium
 " subbistrigella, h. ... Witherslack,
 Worthing, Devon
 L. trifasciella ...among honeysuckle
 L. Clerckella, h. among sloe, and
 fruit trees
 " padifoliella ...
 P. suffusella, h. among sallow
 " salignella, h. among willows, near
 London
 B. ulmella.....among oak
 P. acanthodactylus on heaths
 " punctidactylusLake District,
 Birkenhead, Bristol, Farnham
 " pterodactylus, h. ...among Convolv-
 ulus
 " monodactylus among Convolvulus
 A. polydactyla, h. ...among honey-
 suckle, and in windows

OCTOBER

OVA]

- V. polychloros, s. on elm ; s. sallow, and poplar ; in regular batches, globular, glassy, brownish
- T. quercuson oak twigs
- " w-albumon wytch elm, also elm ; on the twigs
- " prunion sloe twigs
- " betulaeon sloe [sorrel
- P. phleason dock, ragwort,
- L. *Aëgon*on *Ornithopus perpusillus*; white
- L. Argioluson ivy, fl. ; white
- H. commason trefoil, and other Leguminosæ
- L. disparon sloe, hawthorn, fruit trees ; on the trunks, in a heap, covered with down
- " monachaon oak, beech, fir, birch, apple, &c.
- T. crataegito March, on hawthorn ; also s. sloe, sallow, birch, oak
- B. neustriaon hawthorn, sloe, fruit trees ; in batches, round twigs, and branches
- " castrensis ...on *Artemisia maritima*, *Daucus maritimus*, &c.
- E. vespertaria ...on nut [sallow
- apiciariaon poplar, willow,
- C. elinguaon oak, honeysuckle, hawthorn, sloe ; also heath, bilberry, &c.
- H. pennariato April, on oak
- F. pinetariaon bilberry
- E. subciliata.....on maple ; at foot of stalk of leaf
- M. rubiginata ...on alder ; large
- S. vetulataon buckthorn
- C. immanata.....probably on alder, and other trees, and strawberry, bilberry, &c. ; large
- " prunata.....on currant, gooseberry, sloe ; on the bark, large
- " testataon heath, birch, sallow, poplar, &c. ; singly, large
- C. populataon bilberry, whortleberry, poplar ; globular, large, yellow
- " fulvataon dog rose ; rose-pink, large
- " pyraliataon *Galium*, and hawthorn ; large
- " dotataon black, and red currant ; large
- C. spartianato April, on broom
- T. chærophyllata on *Anthriscus sylvestris*, and *Bunium flexuosum*
- D. cæruleocephala on hawthorn, sloe, ragged
- A. Australison succory, *Poa annua*, &c.
- C. xerampelina...on ash, probably in the chinks of the twigs, and the buds
- T. subtusaupon twigs of poplar
- " retusaon sallow, willow, poplar ; upon the axils of the leaves
- O. lotaon willow, and sallow; upon the axils of the leaves ; hatch in the spring
- A. pistacinaon buttercup, &c.
- " lunosaon grasses
- P. chion dock, hawthorn, sallow, and probably lettuce, sowthistle, tea tree, &c.
- " flavocincta to Mar., on dock, chickweed, groundsel, mint, &c. ; in gardens, on everlasting pea, plum, &c.
- E. luteolaon *Lithospermum arvense*, and probably other low plants
- " lichenaeaon ragwort, and probably other plants ; on the coast
- P. empyreaon pilewort ; on the leaf-stalks
- H. proboscidalis on nettle ; rather large, pale yellow

LARVÆ]

OCTOBER

Many of the larvæ met with this month hibernate. The others will be found nearly full-fed, and may be expected to change this month, or the next.

The eggs of *C. xerampelina* often hatch this month. The young larvæ feed only by night, on ash, though they will eat hawthorn, and guelder rose. Sometimes they attain a fair size before they hibernate; but at others they remain quite small; and occasionally even the larvæ do not hatch until November or December. Then it is, when the buds of the ash being small, and hard, the hawthorn, or guelder rose may be found useful as a substitute.

- L. sinapis *Vicia cracca*, and *Orobus tuberosus*
- P. crataegi, h. *hawthorn*, *sloe*, and *orchard trees*
- A. Paphia, h. *dog violet*, and *sweet violet*
- " Aglaia, h. *dog violet*, and *sweet violet*, and *wild heartsease*
- " Niobe, h. *dog violet*, and *sweet violet*
- " adippe, h. *dog violet*, and *sweet violet*
- " Latona, h. *dog violet*, and *sweet violet*, and *wild heartsease*
- " Euphrosyne, h. } in a web at r. of *Selene*, h. } *violets*, &c.
- M. Artemis, h.... *Scabious*, *plantain*; in batches, under a web under leaves; also eats *woodbine*, &c.
- " Cinxia, h. *Plantago lanceolata*
- " Athalia, h. *narrow-leaved plantain*, *foxglove*, *wild germander*
- L. sibylla, h. *honeysuckle*; under a leaf, suspended by silk, from a twig
- A. Iris, h. *sallow*, *poplar*
- A. Galatea, h. *timothy grass*, &c.
- E. Epiphron, h. probably on *Nardus stricta*, and *small rushes*; in mountain bogs
- T. rubi *bramble*, *buds*, and fl.; also probably *broom*, and *Genista*
- P. Phleas, h. *dock*, *ragwort*, *sorrel*
- L. Adonis, h. *Hippocrepis comosa*, &c. [&c.]
- " Corydon, h.... *Hippocrepis comosa*,
- A. Atropos *potato leaves*, &c. (See last month)
- D. galii *Galium*, *fuschia*, &c. (See last month)
- S. tipuliformis, h. in the wood of *currant bushes*
- C. ligniperda ... in the wood of various trees. (See last month)
- C. miniata, h. *lichen*, on *oak* (*Lichen caninus*); also withered *sallow*, *oak*, *alder*
- L. mesomella, h. *lichens*; will also eat *sallow*, and *heath*
- " molybdæola, h. *lichens*
- " griseola, h. *lichens*, on *poplar*; also withered *sallow*, &c.
- D. coryli, s. *beech*, *nut*, *birch*, *alder*, *oak*, *willow*; generally beaten from *beech*
- R. crataegata, h. *hawthorn*, *sloe*
- A. prunaria, h. *sloe*, *beech*, *broom*, *sallow*, *hawthorn*, *plum*, &c.
- S. illustraria.....*oak*, *birch*, *ash*, *beech*, *maple*
- A. betularia *oak*, *birch*, *elm*, *hawthorn*, *elder*, *beech*, *mountain ash*, &c.
- E. trilinearia *beech*
omicronaria *maple*; s. *beech*
- A. luteata *maple*
- A. herbariata, h. dried plants, in *herbaria*, and in *herbalists' shops*, &c. Tansy has been found to be eaten, where the species has occurred
- C. exanthemaria *sallow*, *alder*
- S. clathrata, h. *saintfoin*, *lucerne*, &c.
- A. strigillaria, h. *heath*, *broom*
- A. citraria, z. *wild carrot*, *trefoil*, &c.; generally on the coast
- L. olivata, h. *Galium Mollugo*
- E. unifasciata ... *Odontites rubra*, on the capsules, and seeds
- E. subfulvata ... *Achillea millefolium*, and *chrysanthemum*.

LARVÆ]

OCTOBER

- E. arceuthatajuniper, and
 vine
" castigatagolden rod, heath,
 nettle, Angelica, &c.
" expallidata ...golden rod, fl. ; will
 also eat Michaelmas daisy,
 &c.
" absynthiata ...fl., and seeds of rag-
 wort, Eupatorium cannabinum,
 Artemisia vulgaris, Achillea
 millefolium, golden rod, &c.
" knautiataKnautia arvensis, fl.
 and seeds
" assimilata.....black currant, hop
" exiguabarberry, hawthorn,
 black currant, ash, alder,
 sallow
T. simulatajuniper
Y. elutata, h.nut, sallow, bilberry,
 alder
M. montanata, h. primrose
C. munitata, h. groundsel
F. vitalba, 2. Clematis vitalba
S. undulatasallow, poplars ;
 between leaves.
C. russata, h.strawberry, birch,
 hawthorn, sallow, &c.
" suffumata, h. Galium Mollugo,
 and ragwort ; hibernates full-
 fed to March
E. bipunctaria, h. Lotus corniculatus,
 clover, &c.
A. plagiata, h.... Hypericum perfo-
 ratum, fl.
D. falculabirch ; also oak,
 alder, willow, poplar
" unguicula.....beech
D. bicuspisalder, beech, birch
C. fluctuosabirch ; between
 leaves
B. glandifera, h. lichens, on walls
" perla, h.lichens, on walls
A. tridenshawthorn, sloe, rose,
 willow, sallow, mountain ash
L. vitellina, h.grasses
" putrescens ...grass
" littoralis, h.on Ammophila
 arundinacea ; on the coast ;
 burrows 7 or 8 inches in the
 sand. Will also eat Carex
L. impura, h.Carex, and Dactylis
 glomerata. Before h. the larva
 rolls the grass up, to form "a
 house," by day ; afterwards,
 lives inside the stem, and feeds
 at night only [pitosa
" pallens h.Deschampsia cæs-
 phragmitidis, h. common reed, in
 the young stems ; in marshes,
 and fens
N. lutosa, h.in stems of common
 reed, near the r. ; feeds during
 winter, in mild weather
A. Australis, h. Cichorium intybus,
 Poa annua, and other plants
P. leucophaea, h. tufts of grass ; on
 commons, and in woods
A. basilinea, h. on the immature
 grains of growing wheat ; after
 h., in spring, on various plants
C. Morpheus ...Sedum telephium,
 sallow, bramble, docks, teazle,
 and other low plants
A. valligera, h. . roots of grasses ;
 chiefly on the coast
" Putadandelion, lettuce,
 carrot, r., knotgrass, &c.
" saucia, h.plantain, dock, and
 other low plants
" lunigera—? will eat knot-
 grass, &c.
" ripæCynoglossum offici-
 nale ; on the coast ; burrows 7,
 or 8 in. in the sand
" porphyrea, h. heath
T. ianthina, h. Primula, and other
 low plants ; also broom, &c.
" fimbria, h.birch, sallow, oak,
 ash, broom, primrose, &c.
" subsequa, h. low plants
" Orbona, h.low plants, and
 broom ; when young, on sallow
 buds
" pronuba, h....dock, &c.
N. c-nigrum, h. pea stems, and low
 plants
" confluia, h.various low plants,
 including Silene acaulis
" Dahlia, h.low plants ; s. feeds
 up without h. in mild winters

LARVÆ]

OCTOBER

- N. umbrosa, h. dock, &c.; feeds in mild winters
 " neglecta, h. heath, birch, sallow, and low plants
 " xanthographa, h. plantain, &c.; hides under stones
- A. lunosa, e., h. grasses; more especially in elevated places; may be found concealed under stones
- C. xerampelina, h. ash; will also eat hawthorn, and guelder rose
- D. carpophaga, s. *Lychnis*, and *Silene inflata*, young seeds
- E. lutulenta, h.*Lithospermum arvense*, and other low plants
- A. herbita, h.dock, and other low plants
- H. suasa, s.plantain, lettuce, knotgrass, &c.
 " pisibrake fern, broom, Scabious, grass, *Carex*, sallow, birch, mountain ash, &c.
- H. proboscidalis, h. nettle
- S. emortualis ...oak
 " grisealis*Sisymbrium Sophia*, oak, &c.; the larva does not change until the spring
- B. lupulinalis ...in stems of hop
 " asinalis, h. madder, fl., and young seeds
- E. sambucalisa ...elder, convolvulus
- P. forficaliscabbage, horseradish, &c.
- M. polygonalis...*Ulex nanus*, fl.; on heaths, &c.; *Genista*?
- C. phragmitellus, h. common reed
- M. criblella, h.in thistle stems
- H. nimbellachamomile, and other composite fl.
 " nebulella, b.heads of thistles; also China aster
- C. bistrigella ...alder, between the leaves
- P. interpunctella ... in seed stores, grocer's warehouses, &c., on grain, figs, dried insects, &c.
- P. palumbella, h. *Polygala*
- M. alveariella, h. wax, in beehives
- T. ministrana ...willow, nut, birch, buckthorn
- A. Conwayana...fruit of privet, nut, (?) ash (?)
- C. musculana ...hawthorn, &c.
- P. siculana*Myrica gale*
 " comptana ...*Potentilla*
 " Mitterpacheriana elm, oak
- G. campoliana in sallow leaves
 " geminana ...*Vaccinium*, apple, s.
- E. fœnana, h.in r. of *Artemisia*
- S. Woeberana, h. under bark of plum, and other fruit trees
- C. strobilana, h. cones of spruce
 " argyranamoss, and bark of oak, &c.
- " hyrciniana, h. spruce fir
 " vacciniana ...*Vaccinium*, and *Berberis*
- H. fimbrianarotten oak wood
- E. pisanain pea pods, and vetches [fir
- S. coniferana, h. under bark of Scotch " Leplastrierana, h.in stems of cabbage
 " redimitana ...oak
 " regiana, h.under sycamore bark
 " orobanain pods of *Vicia cracca*, *V. sylvatica*, *Orobus tuberosus*, and *Genista tinctoria*
- D. politana, h. *Achillea millefolium*, r.
- " plumbana.....pods of vetches (?) &c.
- " plumbagana..... *Achillea millefolium*
- C. Albersana ...honeysuckle
 " fulvana.....heads of *Centaurea scabiosa*
- " Scopoliiana ...*Centaurea heads æmulana*in fl. of golden rod
- L. Servillana ... shoots of woolly-leaved sallows
- E. roseana, h.seeds of teasel
 " subroseana?...*Solidago*, fl.
- " implicitana ...*Solidago*, fl. *Pyrethrum*, *Gnapthalium*, &c.
 " anthemidiana *Erigeron acre*, fl.
- A. maritimana in stems, and r. of *Eryngium maritimum*
- C. Francillonana, h., in stems of wild carrot

LARVÆ]

OCTOBER

- C. dilucidana ...in stems of parsnip
 " Smeathmanniana *Anthemis cotula*
 " stramineana *Centaurea* heads
 " alternana*Centaurea scabiosa*,
 heads
L. salicellasallow, alder, maple,
 rose, *Cornus sanguinea*, *Potentilla anserina*, &c.
T. pseudo-bombycella, h. lichen, on
 oak trunks
S. inconspicuella, h. on tree trunks,
 and palings
T. misella.....in dried stems of
 beans, and unthrashed wheat
 " ganomella, h. in birds' nests
 " merdellain furs
 " biseliella, h. in birds' skins, hair
 seating, &c.
I. Zinckenella ...birch
 " Oehlmanniella, h., in a flat case,
 under fallen leaves
A. fibulellain a flat case, on
 leaves of *Veronica chamaedrys*
 " Degerella, h., wood anemone
S. pyrellahawthorn, apple,
 pear, &c.
Y. virginipunctella *Sedum telephium*
A. decemguttella *Lithospermum*
G. malvellahollyhock, seeds
 " notatellasallow
 " obsoletella ...in stems of *Chenopodium*
 " bifractella, h. *Inula dysenterica*,
 and *I. conyzoides*, seeds
 " cerealella, h. in grains of wheat,
 and barley
 " næviferella ...*Atriplex*, and *Che-*
nopodium
 " Hermannella, *Atriplex*, and *Che-*
nopodium
 " brizella*Statice armeria*, in
 fl.-stems
 " subocellella... *Origanum vulgare*,
 seeds
P. lappellaknapweed, and
 burdock, seeds
 " Metzneriella, h. *Centaurea nigra*,
 heads
 " carlinella, h. *Centaurea nigra*,
 and thistle heads
- P. neuropterella, h. in heads of *Cir-*
 sium acaule
C. pseudo-spretella, h. dried fruit,
 peas, and other seeds; also
 hams, &c.
A. autumnella *Solanum dulcamara*
G. Kollariella, b. mining leaves of
 broom
O. avellanella ...nut
 " betulævorella birch
C. paripennella...in a case, flat on
 leaf of birch, rose, sloe
 " salicornella, h.*Salicornia*
 herbacea
 " pyrrhulipennella, h. heath
 " discordella, h. *Lotus corniculatus*
 " genistæcolella, h. *Genista anglica*
 " annulatella ...seeds of *Atriplex*,
 and *Chenopodium*
 " salinella*Atriplex portula-*
coides
 " cacuminetella seeds of *Stellaria*
graminea
 " argentearella ...seeds of *Achillea*
millefolium
 " virgaureella ...seeds of golden rod
 " juncicolella, h. heath
 " solitariella, h. *Stellaria holostea*
 " melilotella ...seeds of melilot
A. æratella, h....in galls, on knotgrass
E. apicipunctella, h. in *Aira*
 " trapeziella, h. in *Luzula pilosa*
T. complanella...oak
 " angusticolella rose
 " dodonæella, h. in oak
L. roborellaoak
 " quinqueguttella dwarf sallows
 " Bremiella.....vetches
 " insignitella ...in a clover
 " lautella.....oak
 " vacciniella ...whortleberry
 " Messaniella ...oak, evergreen oak,
 chesnut, hornbeam, beech
 " Dunningella nut
L. Clerckella ...sloe, apple, cherry,
 hawthorn, &c.
C. spartifoliella...under bark of broom
 " laburnella ...
N. atricapitella...oak
 " anomalella ...rose

LARVÆ]

- N. perpygmælla hawthorn
- " pomellaapple
- " oxyacanthella hawthorn
- " viscerellaelm
- " catharticella...buckthorn
- " Septembrella Hypericum
- " cryptellaLotus
- " Weaverella, h. whortleberry
- " subbimaculella oak
- " argyopezella aspen
- " trimaculella...poplar
- " floslactella ...nut, hornbeam
- " salicivorella ...sallows
- " myrtillellabilberry
- " microtheriella nut, hornbeam
- " betulicolella...birch
- " argentipedella birch
- " tityrella.....beech
- " angulifasciella rose
- N. atricolella ...apple, hawthorn
- " arcuosella.....strawberry
- " splendidissimella bramble, and dewberry ; rarer in wild raspberry
- " apicellaaspen
- " ruficapitella...common oak, and evergreen oak
- " castanella.....Spanish chesnut
- " æneofasciella agrimony, and tormentil
- " aucupariella...mountain ash
- " ulmivorella ...elm
- " tilælla.....lime [bage rose
- " centifolella...dog rose, and cab.
- P. zophodactylus *Erythraea centaurium*
- " microdactylus *Eupatorium canna-binum*

PUPÆ]

- P. Machaonon stems of *Peucedanum palustre*; in fens
- L. sinapisto April, on stems of *Vicia cracca*, and *Orbus tuberosus*; in woods
- P. brassicæ } on palings, walls,
" rapæ..... } &c.
" napi
- L. Argiolus on ivy ; on the underside of a leaf. The larva is s. found this month, feeding on the fl.
- S. ocellatusto April, sub., at willows, poplars, &c.
- " populito April, sub., at poplars, willows, &c.
- " tilæto April, sub., at elm, lime, beech, &c.
- M. stellatarum.. nr. *Galium Mollugo*; just below the surface
- L. asellusto June, spun up, on a leaf
- " testudo.....on oak ; spun up, on a leaf
- A. mendicaunder moss, on trees bordering ditches
- " lubricepeda } spun up, on palings,
" menthrasti } trees, &c.
- A. urticæto May, under moss, on trees, and among willow herb, &c.; in wet places
- O. pudibunda ...in dead leaves, under moss, &c.
- D. corylispun up, under moss, on beech, and other trees
- P. populi spun up, against oak, poplar, &c., near, or just beneath the ground
- E. lanestriscocoon, on the ground, near hawthorn, &c.
- E. versicolora ...spun up, at birch,
- S. carpinito April, cocoon amongst leaves, heath, &c.
- E. dolobraria ...to May, under moss, on oak, &c.
- S. illunariasub., at willow, oak, &c.
- " lunaria.....at sloe, oak, nut, &c.
- O. bidentata..... under moss, on various trees
- P. pilosariasub., at oak, and elm
- N. zonaria.....sub., on sand-hills
- " hispidaria.....at oak
- B. hirtaria.....sub., at elm, lime, ash, and fruit trees

'UPÆ]

OCTOBER

- A. prodromaria sub., at oak, elm, &c.; just beneath the surface
 " betulariato April, sub., at oak, elm, birch, and other trees
 H. abruptaria ...spun up, on twigs, or between the forks, or beneath the branches, of lilac, rose, or privet
 T. consonaria ...to April, undermoss, at r. of beech, oak, birch
 " crepuscularia to Jan., under moss, on alder, birch, elm, poplar, willow; or in bark crevices
 " biundularia ...to Mar., spun up, on oak, and birch
 " punctulata ...to April, undermoss, on birch, and alder; or in bark crevices
 I. lactearia ...to May, spun up, among leaves of oak, and birch
 E. poratafastened to leaf of oak
 " punctaria.....fastened to leaf of oak, or birch
 " trilinearia ...fastened to leaf of beech
 " pendularia ...fastened to leaf of birch
 A. Blomeraria ...sub., at wytch elm; in a weak, earthen cocoon
 E. heparatato April, among moss, &c., on alder
 C. exanthemaria to May, spun up, under leaves of sallow, and alder
 M. lituratato April, in open places, in fir woods, and on the margins, at 1 in., to 2 in. deep, rarely within 2 feet of the tree
 N. pulveraria ...to Mar., in withered sallow leaves, or moss
 F. carbonaria ...among dead leaves of sallow, and birch
 " piniariato March, at Scotch fir, and larch; in open places in woods, rarely within 2 feet of the tree, at 1 $\frac{1}{2}$ in. to 2 in. deep
 A. ononariaamong, or near rest harrow; on the surface
 H. rupicapraria in a web, on the ground, among oak, sloe, &c.
- H. leucophearia on the ground, near oak
 " progemmaria sub., at oak, birch, hornbeam, &c.
 " defolalariasub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
 A. aesculariato Feb., sub., at elm, oak, lime, sloe, hawthorn
 C. brumatasub., at oak, &c.
 L. multistrigaria sub., about Galium
 E. albulatato April, within the spun-up sepals of yellow rattle
 " decolorata.....about Lychnis dioica
 " unifasciata ...among, or near Odonites rubra
 E. venosataabout Silene, and Lychnis
 " consignata ...probably undermoss, and loose bark, in apple orchards
 " pulchellata ...among the seeds, and dead fl. of foxglove
 " isogrammata about Clematis vitalba
 " fraxinataon ash; under moss, and loose bark
 " innotataspun up, among Artemisia campestris
 " nanataabout heath
 " vulgatasub., at various plants, and trees
 " minutataabout heath
 " assimilata ... in crevices, about currant, and hop
 " exiguataabout oak, &c.
 L. sexualatato April, in oval cocoon, among fallen leaves of sallow
 M. ocellataamong Galium; spun up, near the ground. The larva s. remains during winter
 M. substristata ...sub., near Galium
 " galiiatasub., near Galium
 A. sinuatato May, in earthen cocoon; on the ground, among Galium
 " badiata.....in earthen cocoon, on the ground, beneath dog rose bushes
 " derivatasub., at dog rose

PUPAE]

OCTOBER

- C. sagittata* spun up, among *Thalictrum*; or on the ground, near; in fens
- E. lineolata* to April, cocoon, attached to *Galium verum*, on coast sand-hills; below the surface
- C. obliquaria* among broom
- D. bicuspis* to April, spun up, on birch trunks, in the S.; alder in the N.; rarely above 2 feet from the ground. Resembles a Brazil nut
- " *furcula* spun up, on trunk of willow, or sallow
 - " *bfida* spun up, on trunk of poplars
 - " *vinula* spun up, on trunk of willows, poplars, and sallow; three or four ft. from the ground
- S. fagi* to May, spun up, among leaves of beech, oak, birch, elm; s. at r.
- P. Cassinea* sub., at oak; deep
- P. bucephala* to May, sub., at various trees
- C. curtula* to Mar., spun up, between dead leaves of poplars, and sallow
- " *reclusa* to May, spun up, among dead leaves of sallows, poplars, willows
- P. palpina* to June, in cocoon, at willows, and poplars; on edges of streams, on the ground, or under sods
- N. camelina* to May, at various trees, in a slight cocoon
- " *cucullina* to May, at maple, and sycamore; under moss, &c.
 - " *carmelita* sub., at birch
 - " *dictaea* to May, in large cocoon, at poplars, and willows; under a leaf, or sod
 - " *dictaoides* to May, at birch; in a slight cocoon, under a leaf, &c.
 - " *dromedarius* to May, at birch, alder, nut; in a slight cocoon, under a leaf, &c.
- N. zigzag* to May, sub., at poplars, sallow, willows
- " *trepida* sub., at oak; cocoon tough, but not always coated with earth [oak]
 - " *Chamis* to April, sub., at Dodonea
 - " *Dodonea* to May, sub., at oak, and birch
- T. basis* to May, near bramble, and wild raspberry
- C. duplaris* to May, between united birch leaves
- " *fructuosa* to May, among birch leaves
 - " or, b. at birch, among dead, or united leaves
 - " *ocularis*, b. at poplars, near the surface of the ground, or spun against the tree
 - " *flavicornis* ... between united birch leaves
- D. Orion* to May, at birch, and oak; in a cocoon of gnawed bark, or rotten wood
- A. tridens* to May, spun up, in crevices of bark, at hawthorn, sloe, rose, willow, mountain ash, sallow
- " *psi* to May, in bark crevices, of various trees
 - " *leporina* to May, in excavations, in the bark of birch, poplar, alder, sallow
 - " *aceris* to May, spun up, among fallen leaves, and under loose bark of sycamore, horse chestnut, maple, birch, and s. oak [bark]
 - " *megacephala* at poplar, under the
 - " *strigosa* to May among, dead leaves, of hawthorn; or rubbish, or decayed wood; s. sub.
 - " *alni* between leaves of various trees; or inside bramble sticks
 - " *ligustris* to May, spun up, under moss, stones, &c., near ash, and privet; also sub.; also found under the top-stones of walls, against the tree

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OCTOBER

- A. rumicisto May, spun up, in crevices of trees, palings, walls, &c.
- A. putristo May, sub., at elm
- D. pinastrito May, in a cocoon, on the ground, among dock, sorrel, &c.
- X. conspicillaris to Mar., sub., at elm, and other trees
- M. albicolon.....to April, sub., near *Atriplex*, *Chenopodium*, lettuce, &c.
- C. Morpheus.....to May, spun up, in a leaf, or an earthen cocoon, attached to food-plant
- A. segetum, s.to May, sub., among Cruciferae, grass, &c.
- T. piniperda.....at Scotch, and other firs; in open places in fir woods, and on the margin; in crevices of bark, or under moss, and fallen needles, about 1½ in. or 2 in. deep, rarely within 2 ft. of the tree
- T. gothica.....at various trees, just beneath the surface
- " leucographa } at r. of low plants
- " rubricosa ... } at r. of various trees
- " instabilis } at r. of various trees
- " stabilis } at r. of Rosa spinosissima, and dwarf sallows; below the sand, on sand-hills, in the N.
- " populetisub., at poplars, especially *Populus nigra*; deep " gracilis.....sub., at willows, sallows, and low plants
- " miniosaamong fallen leaves, &c.
- " mundaunder moss, at base of oak
- " crudasub., at oak
- D. carpophaga...to April, sub., near *Silene*, and *Lychnis*; on the coast; found by raking sand-hills
- H. serenasub., near *Sonchus*, and lettuce [and birch
- H. glaucasub., near sallow,
- H. oleraceasub., near elm, nettle dock, &c.; also in kitchen gardens
- " thalassina .. sub., near honey-suckle, sallow, broom, &c.
- X. lithorizato Feb., near honey-suckle; in a papery cocoon, on the ground
- C. verbasciin a large, tough, earthen cocoon, near mullein, or figwort
- " scrophulariae in a cocoon, near figwort, or mullein; s. two years in pupa
- " lychnitissub., near white, or black mullein; s. two years in pupa
- " asterissub., near golden rod, &c.; s. two years in pupa
- " gnaphaliisub., near golden rod
- " absynthiisub., near wormwood
- " chamomillæ...sub., near chamomile, &c.
- " umbraticasub., near *Sonchus*, &c.
- H. marginata ...sub., near *Ononis procurrens*
- H. dipsaceato May, among melilot, and probably *Silene otites*, and *Linaria*
- A. myrtillispun up, in heath
- E. venustulato May, at r. of *Tormentilla reptans*, and grass
- B. argentulaamong grass, on the ground
- B. parthenias ...at birch; in crevices of bark, or on the ground
- A. urticæto May, spun up, among nettle leaves
- " triplasiato May, spun up, among nettle leaves, hop, &c.
- P. æneato May, amongst *Polygala vulgaris*
- E. sambucalis ...to May, spun up, in crevices, in palings, walls, &c.; near elder
- G. canella.....to June, among *Salsola kali*

PUPÆ]

<i>L. roborella</i>	} among fallen oak leaves	<i>L. faginella</i> .....among fallen beech leaves
" <i>hortella</i>		" <i>carpinicolella</i> } among fallen leaves
" <i>amyotella</i>		" <i>tenella</i> } of hornbeam
" <i>lautella</i>		
" <i>quercifoliella</i>		
" <i>Heegeriella</i> ...		
" <i>Cramerella</i> ...		

IMAGOS]

Although the cold winds, and occasional frosts, which now begin to visit us, tell of the approach of winter, we have not yet reached the time,

" When the Night doth meet the Noon
In a dark conspiracy
To banish Even from her sky ;"

and the Collector must not yet suppose his "season" is closed. This is the great month for captures at ivy, which is now in bloom ; and a large number of the autumnal species are attracted to the stupefying blossoms. In the daytime bees, and butterflies hold high festival over the mantling ivy sprays ; and at night, soon after dusk, many Moths, especially *Noctuæ*, flock as to a banquet, where

" Unbought dainties crown the feast."

The short period required for the intoxication, or stupefaction, of the Moths is remarkable. The blossoms should be lightly beaten, or shaken, into an umbrella, or clap-net, or sheet, or other contrivance, held or spread beneath, when the Moths required are easily boxed. Sometimes the labours of the Collector are rewarded by the capture of the rare *D. rubiginea*. Other flowers, besides the ivy, are also very attractive to Moths, especially *arbutus*, and stinging nettle ; as are also blackberries, and other fruit.

V. c.-album, h. at blackberries, &c.;	H. pennaria.....woods ; at rest, on trees
may be found hanging to under-side of leaves of trees, in wet weather	
" polychloros, h. hangs up, in out-houses, hollow trees, &c., for the winter	S. sacraria, 2. ...flies by day ; has been taken at fl. ; at sugar ; and at l. [trees
" Antiope, h. ....at ivy, fl., and cossus-infected trees	H. aurantiaria ...woods ; at rest, on " defoliaria.....woods ; at rest, on trees
" Atalanta, h. at ivy, fl., and fruit cardui, h. ...at fl.	C. brumata .....comes to l. " boreata
C. Pamphilus ...	O. dilutata
P. Phlecas.....at fl.	T. juniperata ....comes to l.
A. Atropos .....at rest, on palings, &c.	C. psittacata, h. comes to l. miata, h.
C. celerio .....at fl., at dusk	E. cervinata
" nerii	C. spartiata
E. alniaria	P. Cassinea, e....comes to l. P. bucephala ...at rest

IMAGOS]**OCTOBER**

- P. plumigera ... shady woods, and hedges ; local
- D. ceruleocephala comes to l.
- T. batis, 2.
- L. vitellina
" albipuncta ...at fl.
" comma, s., 2.
" l-album
- N. lutosa, b. ...comes to l.
- H. micaceacomes to l. [to l.
- A. Australisamong grass ; comes
- L. exigua
- C. cubicularis ...beaten, from thatch
- A. suffusa, h.at ivy
" saucia, h.at ivy ; comes to l.
" segetumat ivy
- O. lotaat ivy [berries
macilenta.....at ivy, and yew
- A. rufinaat ivy
" pistacinaat ivy
" lunosacomes to l., and ivy
- C. vaccinii, h.at ivy
" spadicea, h....at ivy
" erythrocephala, h. at ivy
- S. satellitia, h....at ivy [berries
- D. rubiginea, h....at ivy, and yew
- H. croceago, h. at ivy
- X. silago
- " aurago, b.at ivy
" ferruginea ...at ivy
- D. templi, h. ...usually found by turning over stone-heaps, in elevated districts ; comes to l.
- E. nigraat ivy
- M. oxyacanthæ at ivy
- A. Aprilina
- P. meticulosa ..at ivy
" empyreanaat ivy
- C. vetusta, h.at ivy
" exoleta, h.at ivy
- X. lambda [tree trunks
" furcifera, h....at ivy, and rests on
" rhizolitha, h. at ivy, and rests on tree trunks
- " semibrunnea, h. at ivy
" petrificata, h. at ivy
- H. armigeraat ivy [palings
- C. fraxiniat rest, on walls, and
" nuptaat rest, on walls,
tree trunks, &c.
- H. proboscidalis [houses
" rostralis, h. .. in gardens, and out-
- P. fimbrialiscomes to l.
- D. ramburialis ...
- M. unionalissuccessive broods, during the year
- S. coarctalis, h. on mossy walls
- E. ficellain corn, and seed warehouses, among oilcake, &c.
- N. angustella, 2.
- M. alveariella, s. about beehives
- L. scabrinaamong elm [thorn
- P. cristana ...among sallows, & haw-
- P. sordidana.....among alder ; in marshes, and fens
- L. phryganella...
- E. gelatella
- T. imella
- " pellionella ...common, in houses
- " pallescentella in warehouses, and poultreer's shops
- H. radiatella, h.
- V. asperellaamong apple
- P. caudella, h....
- D. hypericella ...among Hypericum
" ocellellaamong swallow
" depressella, s.
- " olerellabeaten, from thatch ; near Hazlemere [slack
- G. LyrellaCastle Eden, Wither-
" atriplicella, 3. among Atriplex, and Chenopodium
- A. betulellabeaten ; Castle Eden, High Force
- Z. fasciapennella the Pentlands
- G. semifasciella
- C. citrinella, h.
- B. somnulentella
- C. chærophyllella, h.
daucella
- L. decorella, h. among Epilobium
- L. trifasciella ...among honeysuckle
- L. padifoliella ...
- P. salignella, h. among willows, near London [vulus
- P. pterodactylus, h. among Convolv-
- " serotinusamong Galium Mollugo
- A. polydactyla, h. ... among honey-
suckle, and in windows

NOVEMBER

OVA]

- T. quercuson oak twigs
" w-albumon wytch elm ; also
elm ; on the twigs
" prunion sloe twigs
L. Ægonon *Ornithopus per-*
pusillus ; white
H. comma.....on trefoil, and other
Leguminosæ
L. monachaon oak, beech, fir,
birch, apple, &c.
T. cratægi.....on hawthorn ; also
s. sloe, sallow, birch, oak
P. populito Mar., on oak,
poplar, lime, ash, hawthorn
B. neustriaon hawthorn, sloe,
fruit trees ; in batches round
twigs, and branches
" castrensison *Artemisia mari-*
tima, *Daucus maritimus*, &c.
E. vespertaria ...on nut
" apicariapoplar, willow,
sallow
C. elinguaria ...on oak, honeysuckle,
hawthorn, sloe ; also heath,
bilberry, &c.
H. pennaria.....on oak
F. pinetaria ...on bilberry
H. aurantiaria ...to March, on oak,
birch, hawthorn, &c.
" defoliariato March, on oak,
nut, sloe, hawthorn, birch, elm,
lime, &c.
C. brumatato March, on oak,
and other trees
" boreatato March, on birch
O. dilutatato March, on oak,
and other trees
E. subciliata.....on maple ; at foot
stalk of leaf
M. rubiginata ...on alder ; large
S. vetulataon buckthorn
C. immanata ...probably on alder,
and other trees, and strawberry,
bilberry, &c. ; large
C. prunata on currant, goose-
berry, sloe ; on the bark, large
" testataon heath, birch,
sallow, poplar, &c. ; singly, large
" populataon bilberry, whortle-
berry, poplar ; globular, large,
yellow
" fulvataon dog rose ; rose-
pink, large
" pyratiataon *Galium*, and
hawthorn ; large
" dotataon black, and red
currant ; large
E. cervinaria ...to April, on mallow
C. spartiataon broom
T. charophyllata... on *Anthriscus*
sylvestris, and *Bunium flexu-*
sum
P. Cassiniato April, on oak
P. plumigera ...on maple ; chiefly
on the twigs, in hedges, not
shaded by trees ; after the 7th
of the month, until March.
Often singly ; but also in twos,
threes, and s. much larger
clusters. Circular, smooth ;
brown above, whitish beneath
C. xerampelina...on ash ; probably in
the chinks of the twigs, and the
buds
T. subtusa.....upon the twigs of
poplar
" retusaon sallow, willow,
poplar ; upon the axils of the
leaves
P. chi.....on dock, hawthorn,
sallow ; and probably lettuce,
sowthistle, " tea tree," &c.
" flavocincta ...on dock, chickweed,
groundsel, mint, &c. ; in gar-
dens, on everlasting pea, plum,
&c.
H. proboscidalis on nettle ; rather
large, pale yellow

LARVÆ]

NOVEMBER

A large number of hibernating larvæ hide away early, and are seldom seen again until the spring. Thus several specified under this month may not have been seen since July, August, or September. Several others come out to feed occasionally, when the weather is mild.

- A. Iris, h.....stretched out, on a swallow twig
- A. Australis, h. *Cichorium intybus*, *Poa annua*, and other plants
- H. hispida, h? .. grasses, lettuce, plantain, &c.
- A. Puta.....dandelion, lettuce, carrot r., knotgrass, &c.
- " saucia, h.plantain, dock, and other low plants
- N. Dahlia, h. ...low plants ; s. feeds up without h., in mild winters
- " umbrosa, h....dock, and various low plants ; feeds in mild weather, through the winter
- C. xerampelina, h. ash
- E. lichenea, h....ragwort, and other low plants ; on the coast
- P. meticulosa, h. groundsel, and various low plants
- " empyrea, h....pilewort, &c.
- M. cephalonica, h....dried currants, &c.
- P. gentiana, h....teazle, heads
- " marginana, h. teazle, heads
- C. fulvana?heads of *Centaurea scabiosa*
- S. ferrugalishas been fed on *Aster amellus*, on the Continent
- M. polygonalis...*Ulex nanus*, fl., on heaths ; *Genista*?
- T. imellaamong furrier's refuse, and has been found in a felt shoe !
- " merdellain furs
- " semifulvella, h. in birds' nests, feeding on wool
- P. bicostella, h. *Erica cinerea*
- A. fibulellain a flat case, on leaves of *Veronica chamædrys*
- C. albitarsella, h ...*Origanum*, and *Glechoma*
- " vitisella, h.whortleberry [trees
- C. Linneella, h. under bark of lime
- E. gangabella, h. *Dactylis glomerata*
- L. lantanella, h. *Viburnum lantana* ; best collected this month
- T. marginea, h. bramble
- N. ruficapitella... in common oak, and evergreen oak

PUPÆ]

-
- P. Machaonon stems of *Peucedanum palustre* ; in fens
 - P. brassicæ ... } on palings, walls,
 - " rapæ..... } &c.
 - " napi }
 - S. ocellatus sub., at willows, poplars, &c.
 - " populisub., at poplar, willow, &c.
 - " tiliæsub., at elm, lime, beech
 - C. ligniperda ...to May, at various trees ; spun up, under bark, &c. ; but s. buries
 - L. asellusspun up, on a leaf
 - A. mendicaunder moss, on trees bordering ditches
 - A. lubricepeda } spun up, on palings, " menthrasti } trees, &c.
 - " urticaunder moss, on trees
 - O. pudibundain dead leaves, under moss, &c.
 - E. lanestris cocoon, on the ground, near hawthorn, &c.
 - E. versicolora ...spun up, at birch
 - S. carpinicocoon, amongst leaves, heath, &c.
 - E. dolobraria ...under moss, on oak
 - S. illunariasub., at willow, oak, &c.
 - " lunaria.....at sloe, oak, nut, &c.
 - " illustraria..... cocoon, among leaves, on, or near, the ground

PUPÆ]

NOVEMBER

- O. bidentata.....under moss, on various trees
 P. pilosariasub., at oak, and elm
 N. zonaria.....sub., on sand-hills
 " hispidaria.....at oak
 B. hirtaria.....sub., at elm, lime, ash, and fruit trees
 A. prodromaria sub., at oak, elm, &c.; just beneath the surface
 " betulariasub., at oak, elm, birch, and other trees
 H. abruptaria ...spun up, on twigs, &c.; of lilac, rose, or privet
 T. consonaria ...under moss, at r. of beech, oak, birch
 " crepuscularia undermoss, on alder, birch, elm, poplar, willow; or in bark crevices
 " biundularia ...spun up, on oak, and birch
 " punctulata ...undermoss, on birch, and alder; or in bark crevices
 I. lacteariaspun up, among leaves of oak, and birch
 E. poratafastened to leaf of oak
 " punctaria.....fastened to leaf of oak, or birch
 " trilinearia.....fastened to leaf of beech
 " pendularia ...fastened to leaf of birch
 E. hepaticaamong moss, &c., on alder
 C. pusaria.....spun up, on the ground
 " exanthemaria spun up, under leaves of sallow, and alder
 M. lituratain open places, and on the margins of fir woods, at 1 inch to 2 inches deep, rarely within 2 feet of the tree
 N. pulveraria ...in withered sallow leaves, &c.
 F. carbonaria ...among dead leaves of sallow, and birch
 " piniariaat Scotch fir, and larch; in open places, in woods, rarely within 2 feet of the tree, at 1 $\frac{1}{2}$ in. to 2 in. deep
- H. rupicapraria in a web, on the ground, among oak, sloe, &c.
 " leucophearia on the ground, near oak
 " progemmaria sub., at oak, birch, hornbeam, &c.
 " defoliariasub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
 A. aescularia.....sub., at elm, oak, lime, sloe, hawthorn
 L. multistrigaria sub., about Galium
 E. albulawithin the spun-up sepals of yellow rattle
 decolorata ...about Lychnis dioica
 E. venosataabout Silene, and Lychnis
 " consignataprobably under moss, and loose bark, in apple orchards
 " pulchellata ...among the seeds, and dead fl. of foxglove
 " isogrammataabout Clematis vitalba
 " fraxinataon ash; under moss, and loose bark
 " nanataabout heath
 " vulgatasub., at various plants, and trees
 " minutataabout heath
 " assimilata.....in crevices, about currant, and hop
 " exiguataabout oak, &c.
 M. ocellataamong Galium; spun up, near the ground. The larva remains during winter
 M. subtristata ...sub., near Galium galia
 A. sinuata.....in earthen cocoon, on the ground, among Galium
 " badiata.....in earthen cocoon, on the ground, beneath dog rose bushes
 " derivatasub., at dog rose
 C. sagittataspun up, about Thalictrum, or on the ground, near; in fens
 E. lineolatacocoon attached to Galium verum, below the surface, on coast sand-hills

PUPÆ]

NOVEMBER

- P. falculabetween united birch leaves
- D. bicuspisspun up, on birch trunks, in the S.; alder in the N.; rarely above 2 ft. from the ground
- " furculaspun up, on trunk of willow, or sallow
- " bifidaspun up, on trunk of poplars
- " vinulaspun up, on trunk of willows, poplars, and sallow; three, or four feet from the ground
- S. fagispun up, among leaves of beech, oak, birch, elm; s. at r.
- P. bucephala ...sub., at various trees
- C. curtulaspun up, between dead leaves of poplars, and sallow
- " reclusato May, spun up, among dead leaves of poplars, willows, sallows
- P. palpina.....at willows, and poplars, on edges of streams, in cocoon, on the ground, or under sods
- N. camelina.....in a slight cocoon, at various trees
- " cucullinaat maple, and sycamore, under moss, &c.
- " carmelitasub., at birch
- " dictæaat poplars, and willows; in large cocoon, under a leaf, or sod
- " dictæoidesat birch; in a slight cocoon, under a leaf, &c.
- " dromedarius at birch, alder, nut; in a slight cocoon, under a leaf, &c.
- " ziczacat poplars, sallow, willows; in a slight cocoon
- " trepidasub., at oak; cocoon tough, but not always coated with earth
- " Chaoniasub., at oak
- Dodonea.....sub., at oak, & birch
- T. batisnear bramble, and wild raspberry
- C. duplarisbetween united birch leaves
- " fluctuosaamong birch leaves
- " or, b.at birch, among dead, or united leaves
- " ocularis, b.at poplars; near the surface of the ground, or spun against the tree
- " flavigornis ...between united birch leaves
- D. Orionat birch, and oak; in a cocoon of gnawed bark, or rotten wood
- A. tridensspun up, in crevices of bark, at hawthorn, sloe, rose, willow, sallow, mountain ash
- " psi.....in bark crevices, of various trees
- " leporinain excavations in the bark of birch, poplar, alder, sallow
- " acerisspun up, among fallen leaves, and under loose bark of sycamore, horse chestnut, maple, birch, and s. oak
- " megacephala at poplar, under the bark
- " strigosaamong dead leaves of hawthorn, or rubbish, or decayed wood; s. sub.
- " alnibetween leaves of various trees; or inside bramble sticks
- " ligustris.....spun up, under moss, stones, &c., near ash, and privet; also sub.; also found under the top stones of walls, against the tree
- " ruminis.....spun up, in crevices of trees, palings, walls, &c.
- A. putrissub., at elm
- D. pinastriin a cocoon, on the ground, among dock, sorrel, &c.
- X. conspicillaris sub., at elm, and other trees
- M. albicolon.....sub., near Atriplex, Chenopodium, lettuce, &c.
- A. segetum, s. ...sub., among Cruciferæ, grass, &c.

PUPÆ]

- T. piniperda.....at Scotch, and other firs; in open places in fir woods, and on the margin; in crevices of bark, and under moss, and fallen needles; rarely within 2 ft. of the tree, 1½ to 2 in. deep
- T. gothica.....at various trees
- " leucographa { at r. of low plants
 - " rubricosa ... { at r. of low plants
 - " instabilis ... { atr. of various trees
 - " stabilis at r. of Rosa spinosissima, and dwarf sallow; below the sand, on sand-hills in the N.
 - " populeti sub., at poplars, especially Populus nigra; deep
 - " gracilis sub., at willows, sallows, and low plants
 - " miniosa among fallen leaves, &c.
 - " munda under moss, at base of oaks
 - " cruda sub., at oak
- D. carpophaga ... sub., near Silene, and Lychnis; on the coast; found by raking sand-hills
- H. serena sub., near Sonchus, and lettuce
- H. glauca sub., near sallow, and birch
- " oleracea sub., near elm, nettle, dock, &c.; also in kitchen gardens
 - " thalassina ... sub., near honeysuckle, sallow, broom, &c.
- X. lithoriza near honeysuckle, in a papery cocoon, on the ground
- C. verbasci ... { sub., in a cocoon,
- " scrophulariae { near mullein, or figwort
- " lychnitis sub., near white, and black mullein
- " asteris { sub., near golden
 - " gnaphalii ... { rod, &c.
 - " absynthii sub., near wormwood
 - " chamomillæ... sub., near chamomile, &c.
 - " umbratica ... sub., near Sonchus, &c.
- H. marginata ... sub., near Ononis procurrens
- H. dipsacea among melilot, and probably Silene otites, and Linaria
- A. myrtilli spun up, on heath
- E. venustula.....at r. of Tormentilla reptans, and grass
- B. argentula.....among grass, on the ground
- B. parthenias ... at birch; in crevices of bark, or on the ground
- A. urticæ spun up, among nettle leaves
- " triplasia spun up, among nettle leaves, hop, &c.
- P. ænea among Polygala vulgaris
- E. sambucalis ... spun up, in crevices in palings, walls, &c., near elder
- G. canella.....among Salsola kali

IMAGOS]

- P. populi at rest, at the base of oak, &c.
- H. pennaria woods; at rest, on trees
- H. aurantia woods; at rest, on trees
- " defoliaria.....woods; at rest, on trees
- C. brumata comes to l.
- " boreafa.....
- O. dilutata
- C. psittacata, h. comes to l.
- P. Cassinea comes to l.
- P. plumigera ...shady woods, and hedges
- L. vitellina
- A. segetum
- C. vaccinii, h.
- " spadicea, h.
- " erythrocephala, h.
- S. satellitia, h.
- D. rubiginea, h.

IMAGOS]**NOVEMBER**

- | | |
|---|--|
| H. croceago, h. | L. phryganella ...flies in woods, in
calm weather |
| D. templi, h. ... | E. gelatella .....among sallow |
| M. oxyacanthæ | T. imella |
| C. exoleta, h. ... | H. radiatella, h. |
| C. chamomillæ, h. | P. caudella, h.... |
| S. coarctalis, h. on mossy walls | C. daucella |
| L. scabrinaamong elm | L. Messaniella ...among evergreen oak
trifasciella ...among honeysuckle |
| P. cristanaamong sallows, and
hawthorn | " Clerckella, h. |

DECEMBER

As there is now but little work to be done, out-of-doors, and as that may be impeded by frost, or snow, the reader may be reminded that this is a convenient period for over-hauling his collection ; carrying out any re-arrangement that, in these days of name-changing, may be deemed desirable ; or clearing out duplicate boxes, and otherwise preparing for the campaign next season. Mitey specimens, if worth preserving, may be "doctored" with a diluted solution of corrosive sublimate, dissolved in alcohol, or vinegar ; or with a weak solution of phenic acid in alcohol, or naphtha.

As papered drawers and boxes are often objectionable, from the trouble they involve, and the obstacle presented to the entrance of fine pins into the cork, by the coat of paper and paste, it may be desirable to whiten the cork instead. To carry this out properly the paper shoud be entirely removed from the cork, and the drawer cleaned. Then take as much levigated oxide of zinc as may be deemed necessary, with a minute portion of indigo or ultramarine, to give greater whiteness, and gently add, mixing with a spatula, as much skimmed milk as will form with it a mixture of the consistence of cream ; then with a soft, flat camel's hair brush apply the mixture evenly over the surface ; by means of a dabber of muslin or cambric eliminate the lines formed by the brush, and dry slowly at some distance from the fire.

The following are stated to be preferable modes of keeping insects in cabinets or boxes to the ordinary camphor method : Treat each drawer, or box, to a fumigation, for a day or two, of Bisulphate of Carbon, by placing a small piece of sponge partially soaked with the fluid in the corner. If this is done once a-year or so, it is said to be perfectly effective in preventing the appearance of mites, beetles, or other enemies. This is the material employed by many dealers for preserving their large stocks of insects. The reader, however, ought to be warned that so offensive is the smell of this enemy of animal life, that it can only be applied in cases where a spare room is available for the purpose. Dr. Laboulbène gives the preference over every other insect preservative to a solution of equal parts of phenic acid and pure benzine, dropped on a small piece of sponge, and placed in the corner of the box, or drawer. This is stated to have the advantage of arresting fungoid growths.

OVA]

- | | | | |
|------------------|--|--------------------|--|
| T. quercus | on oak twigs | T. crataegi..... | on hawthorn ; also
sloe, sallow, birch, oak |
| " w-album | on wytch elm, also
elm ; on the twigs | P. populi | on oak, poplar, lime,
ash, hawthorn |
| " pruni | on sloe twigs | B. neustria | on sloe, hawthorn,
fruit trees ; in batches, round
twigs, and branches |
| L. Egon | on Ornithopus per-
pusillus ; white | " castrensis | on Artemisia mari-
tima, Daucus maritimus, &c. |
| H. comma | on trefoil, and other
Leguminosæ | E. vespertaria ... | on nut |
| L. monacha | on oak, beech, fir,
birch, apple, &c. | | |

OVA]

- E. apicariaon poplar, willow, swallow
 C. elinguaria ...on oak, honeysuckle, hawthorn, sloe ; also heath, bilberry, &c.
 H. pennariaon oak
 F. pinetariaon bilberry
 H. aurantiaria ...on oak, birch, hawthorn, &c. [trees
 C. brumataon oak, and other boreata.....on birch [trees
 O. dilutataon oak, and other
 E. subciliataon maple ; on foot-stalks of leaf
 M. rubiginata ...on alder ; large
 S. vetulataon buckthorn
 C. immanata ...probably on alder, and other trees ; and strawberry, bilberry, &c. ; large
 " prunataon currant, gooseberry, sloe ; on the bark ; large
 " testataon heath, birch, sal-low, poplar, &c. ; singly, large
 " populataon bilberry, whortleberry, poplar ; globular, large, yellow
- C. fulvataon dog rose ; rose-pink, large
 " pyraliataon Galium, and haw-thorn ; large
 " dotataon black, and red currant ; large
 E. cervinaria.....on mallow
 C. spartiataon broom
 T. charophyllata on Bunium flexuo-sum
 P. Cassineaon oak
 P. plumigera ...on maple ; chiefly on the twigs, in hedges, where not shaded by trees. Often singly, but s. in clusters of two, three, or many more. Circular, smooth, brown above, whitish underneath
 T. subtusa.....upon twigs of poplar
 " retusaon sallow, willow, poplar ; upon the axils of the leaves
 P. flavicincta ...on dock, chickweed, groundsel, mint, &c.
 H. proboscidalis on nettle ; rather large, pale yellow

LARVÆ]

- M. anceps—? in damp places
 A. Puta.....dandelion, lettuce, carrot roots, knotgrass, &c.
 " saucia, h.plantain, dock, and other low plants
- M. cephalonica, h. ...dried currants, &c.
 P. gentianana, h. teazle heads
 N. aurellafrom Jan., bramble

PUPÆ]

- P. Machaonon stems of Peucedanum palustre ; in fens
 P. brassicæ ... }
 " rapæ} on palings, walls, &c.
 " napi}
 S. ocellatussub., at willows, poplars, &c.
 " populisub., at poplar, wil-low, &c.
 " tiliæsub., at elm, lime, beech
 C. ligniperda ...at various trees; spun up, under bark, &c. ; but s. buries
- L. asellusspun up, on a leaf
 A. mendicaunder moss, on trees bordering ditches
 " lubricepeda } spun up, on palings,
 " menthrasti } trees, &c.
 " urticæunder moss, on trees
 O. pudibunda ...in dead leaves, under moss, &c.
 E. lanestriscocoon, on the ground, near hawthorn, &c.
 E. versicolora ...spun up, at birch
 S. carpinicocoon, amongst leaves, heath, &c.
 E. dolobraria ...under moss, on oak

PUPÆ]

DECEMBER

- S. illunaria sub., at willow, oak, &c.
 " lunaria at sloe, oak, nut, &c.
 O. bidentata under moss, on various trees
 P. pilosaria sub., at oak, and elm
 N. zonaria sub., on sand-hills
 hispidaria at oak
 B. hirtaria sub., at elm, lime, ash, and fruit trees
 A. prodromaria sub., at oak, elm, &c.; just beneath the surface
 betularia sub., at oak, elm, birch, and other trees
 H. abruptaria ...spun up, on twigs, &c., of lilac, rose, and privet
 T. consonariaunder moss, at r. of beech, oak, birch
 crepuscularia undermoss, on alder, birch, elm, poplar, willow; or in bark crevices
 biundularia ...spun up, on oak, and birch
 punctulata ...undermoss, on birch, and alder; or in bark crevices
 I. lacteariaspun up, among leaves of oak, and birch
 E. poratafastened to leaf of oak
 punctaria fastened to leaf of oak, or birch
 trilinearia.....fastened to leaf of beech
 pendularia ...fastened to leaf of birch
 E. heparataamong, moss, &c., on alder
 C. exanthemaria spun up, under leaves of sallow, and alder
 M. lituratain, and near larch woods, 1 in. to 2 in. deep, rarely within 2 ft. of the tree
 N. pulveraria ...in withered sallow leaves, &c.
 F. carbonaria ...among dead leaves of sallow, and birch
 piniariaat Scotch fir, and larch; in open places, in woods, rarely within 2 ft. of the tree, at 1½ to 2 in. deep
- H. rupicapraria in a web, on the ground; among oak, sloe, &c.
 " leucophearia on the ground, near oak
 " progemmaria sub., at oak, birch, hornbeam, &c.
 " defoliaria.....sub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
 A. æscularia.....at elm, oak, lime, sloe, hawthorn
 L. multistrigaria sub., about Galium
 E. albulawithin the spun-up sepals of yellow rattle
 decorata ...about Lychnis dioica
 E. venosata...about Silene, & Lychnis
 consignata probably under moss, and loose bark, in apple orchards
 pulchellata ...among the seeds, and dead fl. of foxglove
 isogrammata about Clematis vitalba
 fraxinataon ash; under moss, and loose bark
 nanataabout heath
 vulgata.....sub., at various plants, and trees
 minutataabout heath
 assimilata ...in crevices, about currant, and hop
 exiguataabout oak, &c.
 Y. impluviata ...in curled-up leaves of alder
 M. ocellataamong Galium; spun up, near the ground. The larva s. remains during winter
 M. subtristata ...sub., near Galium
 galiatasub., near Galium
 A. sinuatain earthen cocoon, on the ground, among Galium
 badiata.....in earthen cocoon, on the ground, beneath dog rose bushes
 derivatasub., at dog rose
 C. sagittataspun up, about Thalictrum, or on the ground, near; in fens
 E. lineolatacocoon, attached to Galium verum; below the surface, on coast sand-hills

PUPÆ]

DECEMBER

- D. bicuspisspun up, on birch trunks, in the S., alder in the N.; rarely above 2 ft. from the ground
 " furculaspun up, on trunk of willow, or sallow
 " bifidaspun up, on trunk of poplars
 " vinulaspun up, on trunk of willows, poplars, and sallow; three, or four feet from the ground
 S. fagispun up, among leaves of beech, oak, birch, elm; s. at r.
 P. bucephala ...sub., at various trees
 C. curtula.....spun up, between dead leaves of poplars, and sallow
 " reclusaspun up, among dead leaves of poplars, willows, sallows
 P. palpinaat willows, and poplars, on edges of streams; or under sods
 N. camelinasub., at various trees
 " cucullinasub., at maple, and sycamore
 " carmelitasub., at birch
 " dictæaat poplars, and willows; or under sods, near
 " dictæoides ...sub., at birch
 " dromedarius sub., at birch, alder, nut
 " zizcacsub., at poplars, sallow, willows
 " trepida.....sub., at oak; cocoon tough, but not always coated with earth
 " Chaoniasub., at oak
 " Dodoneasub., at oak, and birch
 T. batis.....near bramble, and wild raspberry [leaves
 C. duplarisbetween united birch
 " fluctuosaamong birch leaves
 " flavicornisbetween united birch leaves
 D. Orionat birch, and oak; in a cocoon of gnawed bark, or rotten wood
- A. tridensspun up, in crevices of bark, at hawthorn, sloe, rose, willow, sallow, mountain ash
 " psi.....in bark crevices of various trees
 " leporinain excavations, in the bark, of birch, poplar, alder, sallow
 " acerisspun up, among fallen leaves, and under loose bark, of sycamore, horse chestnut, maple, birch; s. oak
 " megacephala at poplar; under the bark
 " strigosa.....among dead leaves of hawthorn, or rubbish, or decayed wood; s. sub.
 " alnibetween leaves of various trees; or inside bramble sticks
 " ligustrispun up, under moss, stones, &c., near ash, and privet; also sub.; also found under the top stones of walls, against the tree
 " rumicis.....spun up, in crevices of trees, palings, walls, &c.
 A. putrissub., at elm
 D. pinastriin a cocoon, on the ground; among dock, sorrel, &c.
 X. conspicillaris sub., at elm, and other trees
 M. albicolon.....sub., near *Atriplex*, *Chenopodium*, lettuce, &c.
 A. segetum, s.sub., among Cruciferæ, grass, &c.
 T. piniperda.....at Scotch, and other firs, in open places in fir woods, and on the margin, in crevices of bark; and under moss and fallen needles, rarely within 2 feet of the tree, 1½ to 2 in. deep
 T. gothica.....at various trees
 " leucographa { at r. of low plants
 " rubricosa ... }
 " instabilis ... { at r. of various trees
 " stabilis{ at r. of Rosa spinosissima, and dwarf sallow; on sand-hills, in the N.

PUPÆ]**DECEMBER**

- T. populeti sub., at poplars,
especially *Populus nigra*
" gracilis sub., at willows,
sallows, and low plants
" miniosa among fallen leaves,
&c.
" munda under moss, at base
of oak
" cruda sub., at oak
D. carpophaga ... sub., near *Silene*,
and *Lychnis*; on the coast;
found by raking sand-hills
H. serena sub., near *Sonchus*,
and lettuce
H. glauca sub., near sallow,
and birch
" oleracea sub., near elm, nettle,
dock, &c.; also in kitchen gar-
dens
" thalassina sub., near honeys-
suckle
X. lithoriza near honeysuckle, in
a papery cocoon; on the ground
C. verbasci } sub., in a cocoon,
" scrophulariae } near mullein, or
" lychnitis sub., near white, and
black mullein
- C. asteris } sub., near golden
" gnaphalii } rod, &c.
" absynthii sub., near worm-
wood
" chamomillæ ... sub., near chamo-
mile, &c.
" umbratica ... sub., near *Sonchus*,
&c.
H. marginata ... sub., near *Ononis*
procurrens
" dipsacea among melilot, and
probably *Silene* otites, and
Linaria
A. myrtilli spun up, on heath
E. venustula..... at r. of *Tomentilla*
reptans, and grass
B. argentula..... among grass
B. parthenias ... at birch, in crevices
of bark; or on the ground
A. urticæ spun up, among
nettle leaves
" triplasia spun up, among
nettle, hop, &c.
P. anaea..... among *Polygala*
vulgaris
E. sambucalis ... spun up, in crevices
in palings, walls, &c., near elder
G. canella..... among *Salsola kali*

IMAGOS

- | | |
|---------------------------------------|---------------------------------------|
| H. pennaria | P. Cassinea, b.... |
| P. pilosaria | P. plumigera ... |
| H. rupicapraria, e. on hawthorn twigs | X. rhizolitha, h. |
| " defoliaria..... | E. gelatella among sallow |
| C. brumata comes to l. | H. radiatella, h. |
| boreata..... | P. caudella, h ... |
| O. dilutata | L. trifasciella ... among honeysuckle |
| P. populi | |

NOTES ON LOCALITIES.

In spite of the encroachments constantly being made by advancing "civilization," and the agricultural, and other improvements being carried out, in large tracts of country, fortunately, for the sake of Entomological and Botanical Science, we have still many localities left to us in a comparative state of nature. The geological and physical features of a country are well known to be the chief regulating agencies in the production of its Flora and its Fauna. We are chiefly interested in the Insect Fauna only, and the Flora upon which that mainly depends. If the observer is assured of the productiveness of any particular locality in a special plant, or family of plants, he may fairly conclude that there are corresponding Insects also to be found. Hills, as a rule, (when moderately covered with a good variety of not-too-closely planted wood) seem more productive than purely agricultural districts in the vale, besides producing special Insects which are not to be found elsewhere. Wet places, provided they are not too much exposed, produce more insect-life than colder and dryer places. Thus forests, woods, heaths, bogs, and especially fens, and sandy districts bordering the sea, are favourite resorts of the Entomologist. In these latter places especially do we find rare and interesting insects. Some of them are remarkably local, being apparently confined to a very small space, not always precisely defined by the range of the food-plant. In some of these districts, notably the "Breck" districts of Norfolk and Suffolk, the ancient coast-line, *inside* the existing line, is unmistakeably indicated, and produces its special plants and insects, not to be found elsewhere in the kingdom. These are spots which are most interesting from a scientific point of view, and ought never to be "hunted to death," for the sake of the rare specimens they produce, or we may see "the goose killed for the sake of the golden eggs," to our cost,—a process, indeed, we are threatened with, in regard to some of our local insects, by needy dealers, and greedy Collectors. Mr. Charles G. Barrett has done much to make us acquainted with the riches of this "Breck" district, and the neighbouring fens, and by his energy and intelligence has greatly enlarged our scientific knowledge of many species.

Probably one of the best districts in this country for Insects is Rannoch, which is doubtless largely due to the abundant vegetation of the heaths, woods, and hills having from time immemorial remained wild and unshorn. This it is, too, which makes our old forests such excellent hunting grounds for local insects, particularly Sherwood Forest, and the New Forest. Epping Forest, too, (now happily preserved against further encroachments from lucre-loving lords-of-the-manor), was once a famous locality, and doubtless many good species still linger there. The Forest of Dean has been somewhat disappointing, probably because of the poorness of a good deal of the soil, and the number of young plantations, interspersed with coal-pits and iron-works; while it is a difficult country to work, on account of its hilly character. Bewdley Forest, Worcestershire, has yielded larvæ of *E. versicolora*, and other good things.

Many of our moors, mosses, and heaths yield a fair number of good species, or did do so some years ago ; and the undrained fens of Cambridge and Norfolk have long been held in esteem for the richness of their Insect Fauna. Many of the bare, wild districts in the North, "far removed from the haunts of men," have, by sturdy and persistent hunting, been made to yield abundantly. The Isle of Man, and the Hill of Howth, near Dublin, have attracted some of our best Entomologists, and have been the means of adding several new species to our Lists. The Isle of Portland is almost the only place where some species of Acidalia are to be found, though success is not always vouchsafed the wayfarer, owing to the villainously wet and windy weather which largely prevails in that district. The coast of Dorset in two places, the Burning Cliff, and Lulworth Cove, yields the very local skipper *P. Actæon*.

The London District includes many good localities which can easily be reached by railway. West Wickham wood, near Croydon, has yielded several good species. The Collector is recommended to proceed from Croydon towards the village of Addington, examining as he goes along the "Bishop's fence" for *N. carmelita*, should he be there when it is due, and also the birch, fir, and other tree trunks. The wood is near the inn. Coombe wood has been worked by the older Entomologists with great success. It is preserved for shooting purposes by the Duke of Cambridge, from whose agent Mr. Clutton, Whitehall-place, it is said to be possible to get an order for admission in pursuit of insects.

Kent, besides being "the garden of England," is probably one of our finest entomological counties. It is so largely blown upon from the sea ; it has such a variety of soil and physical feature ; and it is so liberally interspersed with well-wooded hills, that this is not to be wondered at. Fortunate is the Entomologist sojourning or resident in London, with time and means to hunt the coasts, and hills, and glades of sunny Kent.

It is on our coasts, marshes, and mountains that we are most likely to find species hitherto unrecorded as British, if not absolutely new to Science. Unfortunately working in these places involves a large expenditure of time, while the labour is so severe that only the strongest can follow it up. If some of our Societies could be induced to take this work up, by employing trustworthy Collectors, they would, while adding materially to the richness of their own collections, fulfil a legitimate function of their existence, and give additional lustre to the reputation gained by England of late years in the path of Entomological Discovery.

APPENDIX I.

SPECIFIC AND COMMON NAMES OF PLANTS MENTIONED IN THE CALENDAR.

<i>Abies excelsa</i>	spruce fir
" <i>picea</i>	silver fir
<i>Acer pseudo-platanus</i>	sycamore
" <i>campestre</i>	maple
<i>Achillea millefolium</i>	yarrow
" <i>ptarmica</i>	sneezewort
<i>Actaea spicata</i>	herb Christopher
<i>Ægopodium podagraria</i>	gout weed
<i>Aira canescens</i>	grey hair grass
" <i>cæspitosa</i>	turfy hair grass
<i>Agrimonia eupatoria</i>	agrimony
<i>Alisma plantago</i>	greater water plantain
<i>Alnus glutinosa</i>	alder
<i>Alopecurus agrestis</i>	slender foxtail grass
<i>Althea officinalis</i>	marsh mallow
" <i>rosea</i>	hollyhock
<i>Ammophilia arundinacea</i>	sea reed, or marum
<i>Anagallis arvensis</i>	scarlet pimpernel, or poor man's weather glass
<i>Arenaria media</i>	sea-side sandwort
<i>Angelica sylvestris</i>	wild angelica
<i>Anthemis nobilis</i>	common chamomile
" <i>cotula</i>	stinking chamomile
<i>Anthriscus sylvestris</i>	wild chervil
" <i>vulgaris</i>	common beaked parsley
<i>Anthyllis vulneraria</i>	woundwort, or kidney vetch
<i>Aquilegia vulgaris</i>	columbine
<i>Arabis</i>	rock cress, white arabis, &c.
<i>Arctostaphylos uva-ursi</i>	red bearberry
<i>Artemisia campestris</i>	field southernwood
" <i>vulgaris</i>	mugwort
" <i>maritima</i>	sea wormwood
" <i>absinthium</i>	wormwood
<i>Æsculus hippocastanum</i>	horse chestnut
<i>Asparagus officinalis</i>	common asparagus
<i>Asperula odorata</i>	sweet woodruff
<i>Asphodelus luteus</i>	yellow asphodel
<i>Asplenium Ruta muriaria</i>	wall-rue spleenwort
<i>Aster novi belgii</i>	Michaelmas daisy

<i>Atriplex</i>	.....	orache
"	<i>portulacoides</i>	shrubby orache, or sea purslane
<i>Avena pratensis</i>	.....	narrow-leaved oatgrass
<i>Ballota nigra</i>	.....	black horeround
<i>Balsamia hortensis</i>	.....	balsam
<i>Barbarea vulgaris</i>	.....	yellow rocket, or bitter winter cress
<i>Bartsia viscosa</i>	.....	yellow viscid bartsia
<i>Berberis vulgaris</i>	.....	barberry
<i>Beta maritima</i>	.....	sea beet
<i>Betula alba</i>	.....	birch
<i>Brachypodium sylvaticum</i>	.....	slender false brome grass
<i>Brassica oleracea</i>	.....	cabbage
"	<i>rapa</i>	turnip
"	<i>napus</i>	rape
<i>Bryonia dioica</i>	.....	red-berried bryony
<i>Briza media</i>	.....	quaking grass
<i>Bunium flexuosum</i>	.....	earth nut
<i>Calamagrostis epigejos</i>	.....	wood reed
<i>Callistephus chinensis</i>	.....	China aster
<i>Callitricha verna</i>	.....	water starwort
<i>Calluna erica</i>	.....	heath, or ling
<i>Caltha palustris</i>	.....	marsh marigold
<i>Calystegia sepium</i>	.....	large convolvulus, or great bindweed
<i>Campanula trachelium</i>	.....	nettle-leaved campanula
"	<i>rotundifolia</i>	harebell
<i>Cardamine amara</i>	.....	bitter lady's smock
"	<i>pratensis</i>	common lady's smock
"	<i>hirsuta</i>	hairy bitter cress
<i>Carduus nutans</i>	.....	musk thistle
"	<i>acanthoides</i>	welted thistle
"	<i>lanceolatus</i>	spear plume thistle
"	<i>crispus</i>	jagged thistle
<i>Carex paniculata</i>	.....	great paniced sedge
"	<i>sylvatica</i>	pendulous wood sedge
"	<i>paludosa</i>	lesser common sedge
"	<i>riparia</i>	great common sedge
"	<i>glaucia</i>	glaucous heath sedge
"	<i>intermedia</i>	soft brown marsh sedge
<i>Carpinus betulus</i>	.....	hornbeam
<i>Castanea vulgaris</i>	.....	Spanish chesnut
<i>Centaurea nigra</i>	.....	black knapweed
"	<i>scabiosa</i>	great knapweed
<i>Cerastium vulgatum</i>	.....	broad-leaved mouse-ear chickweed
"	<i>tomentosum</i>	woolley mouse-ear chickweed
"	<i>arvense</i>	field chickweed, or mouse-ear
<i>Cerasus avium</i>	.....	wild cherry
"	<i>padus</i>	bird cherry
"	<i>laurocerasus</i>	laurel
<i>Chenopodium album</i>	.....	goosefoot
<i>Chærophyllum temulum</i>	.....	rough chervil
<i>Chrysanthemum leucanthemum</i>	.....	ox eye
"	<i>sineuse</i>	chrysanthemum

<i>Chrysosplenium alternifolium</i>	.....alternate-leaved golden saxifrage
<i>Chichorium intybus</i>	.....wild succory
<i>Circæa lutetiana</i>	.....enchanter's nightshade
<i>Cirsium lanceolatum</i>	.....spear plume thistle
" <i>arvense</i> (<i>Carduus arvensis</i>)	creeping plume thistle
" <i>acaulis</i>	.....dwarf plume thistle
<i>Clematis vitalba</i>	.....clematis, or travellers' joy
<i>Ochlearia armoracia</i>	.....horse radish
" <i>anglica</i>	.....English scurvy grass
" <i>officinalis</i>	.....common scurvy grass
" <i>daniica</i>	.....Danish scurvy grass
<i>Olneya arborea</i>	.....bladder senna
<i>Onium maculatum</i>	.....common hemlock
<i>Onvolvulus arvensis</i>	.....small convolvulus, or small bindweed
<i>Ornus sanguinea</i>	.....dogwood, or wild cornel
<i>Orylus avellana</i>	.....nut, or hazel
<i>Ratægus oxyacantha</i>	.....hawthorn, or whitethorn
<i>Ucubalus bacciferus</i>	.....berry-bearing campion
<i>Upssressus fastigata</i>	.....cypress
<i>Ynoglossum officinale</i>	.....houndstongue
<i>Yperaceæ</i>	.....rush
<i>Ytisus scoparius</i>	.....broom
<i>Dactylis glomerata</i>	.....rough cocksfoot grass
<i>Datura stramonium</i>	.....thorn-apple
<i>Daucus carota</i>	.....common carrot
" <i>maritimum</i>	.....sea-side carrot
<i>Delphinium</i>	.....larkspur
<i>Digitalis purpurea</i>	.....foxglove
<i>Dipsacus sylvestris</i>	.....wild teazle
" <i>Fullonum</i>	.....fuller's teazle
<i>Dryas octopetala</i>	.....dryas, or mountain avens
<i>Dryum capilare</i>	.....a common moss
<i>Chium vulgare</i>	.....viper's bugloss
<i>Lymus arenarius</i>	.....upright sea lyme grass
<i>Empetrum nigrum</i>	.....crakeberry, or crowberry
<i>Pilobium montanum</i>	.....broad smooth-leaved willow herb
" <i>parviflorum</i>	.....small-flowered hairy willow herb
" <i>palustre</i>	.....narrow-leaved marsh willow herb
" <i>angustifolium</i>	.....rose bay willow herb
" <i>hirsutum</i>	.....great hairy willow herb
" <i>alsinifolium</i>	.....chickweed-leaved willow herb
<i>Quisettum</i>	.....horsetail
<i>Erica cinerea</i>	.....fine-leaved heath
" <i>tetralix</i>	.....cross-leaved heath
<i>Erigeron acre</i>	.....blue fleabane
<i>Hippophorum vaginatum</i>	.....cotton grass
<i>Iriothrea centaurium</i>	.....common centaury
<i>Rodium circutarium</i>	.....hemlock storksbill
<i>Eryngium maritimum</i>	.....sea eryngo, or sea holly
<i>Isrysimum cheiranthoides</i>	.....treacle mustard
<i>Unonica europeus</i>	.....spindle
<i>Upatorium cannabinum</i>	.....hemp agrimony

PUPÆ]

DECEMBER

- S. illunaria sub., at willow, oak, &c.
 " lunaria at sloe, oak, nut, &c.
 O. bidentata.....under moss, on various trees
 P. pilosaria sub., at oak, and elm
 N. zonaria.....sub., on sand-hills
 " hispidaria at oak
 B. hirtaria.....sub., at elm, lime, ash, and fruit trees
 A. prodromaria sub., at oak, elm, &c.; just beneath the surface
 " betularia sub., at oak, elm, birch, and other trees
 H. abruptaria ...spun up, on twigs, &c., of lilac, rose, and privet
 T. consonaria ...under moss, at r. of beech, oak, birch
 " crepuscularia undermoss, on alder, birch, elm, poplar, willow; or in bark crevices
 " biundularia ...spun up, on oak, and birch
 " punctulata ...undermoss, on birch, and alder; or in bark crevices
 I. lacteariaspun up, among leaves of oak, and birch
 E. poratafastened to leaf of oak
 " punctaria fastened to leaf of oak, or birch
 " trilinearia.....fastened to leaf of beech
 " pendularia ...fastened to leaf of birch
 E. separataamong, moss, &c., on alder
 C. exanthemaria spunup, under leaves of sallow, and alder
 M. lituratain, and near larch woods, 1 in. to 2 in. deep, rarely within 2 ft. of the tree
 N. pulveraria ...in withered sallow leaves, &c.
 F. carbonaria ...among dead leaves of sallow, and birch
 " pinariaat Scotch fir, and larch; in open places, in woods, rarely within 2 ft. of the tree, at 1½ to 2 in. deep
- H. rupicapraria in a web, on the ground; among oak, sloe, &c.
 " leucophearia on the ground, near oak
 " progemmaria sub., at oak, birch, hornbeam, &c.
 " defolaria.....sub., at oak, hawthorn, sloe, hornbeam, nut, elm, &c.
 A. aescularia.....at elm, oak, lime, sloe, hawthorn
 L. multistrigaria sub., about Galium
 E. albulawithin the spun-up sepals of yellow rattle
 decolorata ...about Lychnis dioica
 E. venosata...about Silene, & Lychnis
 " consignata probably under moss, and loose bark, in apple orchards
 " pulchellata ...among the seeds, and dead fl. of foxglove
 " isogrammata about Clematis vitalba
 " fraxinataon ash; under moss, and loose bark
 " nanataabout heath
 " vulgata.....sub., at various plants, and trees
 " minutataabout heath
 " assimilata ...in crevices, about currant, and hop
 " exiguaabout oak, &c.
 V. impluviata ...in curled-up leaves of alder
 M. ocellataamong Galium; spun up, near the ground. The larva s. remains during winter
 M. substristata ...sub., near Galium galiatesub., near Galium
 A. sinuatain earthen cocoon, on the ground, among Galium
 " badiata.....in earthen cocoon, on the ground, beneath dog rose bushes
 derivatasub., at dog rose
 C. sagittataspun up, about Thalictrum, or on the ground, near ; in fens
 E. lineolatacocoon, attached to Galium verum ; below the surface, on coast sand-hills

PUPÆ]

DECEMBER

- D. bicuspidspun up, on birch trunks, in the S., alder in the N.; rarely above 2 ft. from the ground
 " furculaspun up, on trunk of willow, or sallow
 " bifidaspun up, on trunk of poplars
 " vinulaspun up, on trunk of willows, poplars, and sallow; three, or four feet from the ground
 S. fagispun up, among leaves of beech, oak, birch, elm; s. at r.
 P. bucephala ...sub., at various trees
 C. curtula.....spun up, between dead leaves of poplars, and sallow
 " reclusaspun up, among dead leaves of poplars, willows, sallows
 P. palpinaat willows, and poplars, on edges of streams; or under sods
 N. camelinasub., at various trees
 " cucullinasub., at maple, and sycamore
 " carmelitasub., at birch
 " dictaeaat poplars, and willows; or under sods, near
 " dictæoides ...sub., at birch
 " dromedarius sub., at birch, alder, nut
 " zizcacsub., at poplars, sallow, willows
 " trepidasub., at oak; cocoon tough, but not always coated with earth
 " Chaoniasub., at oak
 " Dodoneasub., at oak, and birch
 T. batis.....near bramble, and wild raspberry [leaves
 C. duplarisbetween united birch
 " fluctuosaamong birch leaves
 " flavicornis ...between united birch leaves
 D. Orionat birch, and oak; in a cocoon of gnawed bark, or rotten wood
 A. tridensspun up, in crevices of bark, at hawthorn, sloe, rose, willow, sallow, mountain ash
 " psiin bark crevices of various trees
 " leporinain excavations, in the bark, of birch, poplar, alder, sallow
 " acerisspun up, among fallen leaves, and under loose bark, of sycamore, horse chestnut, maple, birch; s. oak
 " megacephala at poplar; under the bark
 " strigosa.....among dead leaves of hawthorn, or rubbish, or decayed wood; s. sub.
 " alnibetween leaves of various trees; or inside bramble sticks
 " ligustrisspun up, under moss, stones, &c., near ash, and privet; also sub.; also found under the top stones of walls, against the tree
 " rumicis.....spun up, in crevices of trees, palings, walls, &c.
 A. putrissub., at elm
 D. pinastriin a cocoon, on the ground; among dock, sorrel, &c.
 X. conspicillaris sub., at elm, and other trees
 M. albicolon.....sub., near Atriplex, Chenopodium, lettuce, &c.
 A. segetum, s.sub., among Cruciferæ, grass, &c.
 T. piniperda.....at Scotch, and other firs, in open places in fir woods, and on the margin, in crevices of bark; and under moss and fallen needles, rarely within 2 feet of the tree, 1½ to 2 in. deep
 T. gothica.....at various trees
 " leucographa { at r. of low plants
 " rubricosa ... {
 " instabilis ... { at r. of various trees
 " stabilis{
 " opimaat r. of Rosa spinosissima, and dwarf sallow; on sand-hills, in the N.

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 " opimaat r. of Rosa spinosissima, and dwarf sallow; on sand-hills, in the N.

<i>Scleranthus annuus</i>	annual knawel
<i>Scolopendrium vulgare</i>	.....	common hartstongue
<i>Scrophularia aquatica</i>	.....	water figwort
<i>nodosa</i>	.....	knotted figwort
<i>Scutellaria galericulata</i>	.....	common skullcap
<i>Sedum telephium</i>	.....	orpine, or live-long
" <i>acre</i>	.....	biting stonecrop, or wall pepper
" <i>reflexum</i>	.....	crooked yellow stonecrop
" <i>album</i>	.....	white stonecrop
<i>Senecio Jacobaea</i>	.....	common ragwort
" <i>aquaticus</i>	.....	marsh ragwort
" <i>vulgaris</i>	.....	common groundsel
" <i>sylvaticus</i>	.....	mountain groundsel
<i>Sesleria caerulea</i>	.....	blue moor grass
<i>Silene acaulis</i>	.....	moss campion
" <i>inflata</i>	.....	bladder campion
" <i>maritima</i>	.....	sea campion
" <i>otites</i>	.....	Spanish catchfly
" <i>nutans</i>	.....	Nottingham catchfly
<i>Sinapis nigra</i>	.....	black mustard
" <i>arvensis</i>	.....	charlock
" <i>alba</i>	.....	white mustard
<i>Sisymbrium Sophia</i>	.....	flixweed
<i>Sium latifolium</i>	.....	broad-leaved water parsnip
<i>Solanum dulcamara</i>	.....	woody nightshade
" <i>nigrum</i>	.....	black nightshade
" <i>tuberosum</i>	.....	potato
<i>Solidago virgaurea</i>	.....	golden rod
<i>Sonchus arvensis</i>	.....	corn sow thistle
" <i>oleraceus</i>	.....	common sow thistle
<i>Sparganium</i>	.....	bur reed
<i>Spinacia</i>	.....	spinach
<i>Spiraea ulmaria</i>	.....	meadow sweet
<i>Stachys betonica</i>	.....	betony
" <i>sylvatica</i>	.....	hedge woundwort
" <i>arvensis</i>	.....	corn woundwort
<i>Statice armeria</i>	.....	sea pink, or thrift
" <i>limonium</i>	.....	spreading spiked sea thrift, or sea lavender
<i>Stellaria uliginosa</i>	.....	bog stitchwort
" <i>graminea</i>	.....	lesser stitchwort
" <i>media</i>	.....	common chickweed
" <i>holostea</i>	.....	greater stitchwort
<i>Stratiotes aloides</i>	.....	water aloe, or water soldier
<i>Symporicarpus racemosus</i>	.....	snowberry
<i>Symphytum officinale</i>	.....	common comfrey
<i>Syringa vulgaris</i>	.....	lilac
<i>Tamus communis</i>	.....	black bryony
<i>Tanacetum vulgare</i>	.....	tansy
<i>Taraxacum dens leonis</i>	.....	dandelion
<i>Teucrium scorodonia</i>	.....	wild germander, or wood sage
<i>Thalictrum minus</i>	.....	lesser meadow rue
" <i>flavum</i>	.....	common meadow rue

<i>Thymus serpyllum</i>	wild thyme
<i>Tilia intermedia</i>	lime tree
<i>Trifolium repens</i>	Dutch clover, white clover, or shamrock
" <i>procumbens</i>	hop trefoil
<i>Tripolium vulgare</i>	sea starwort
<i>Triticum repens</i>	couch grass
" <i>juncinum</i>	rushy sea wheat grass
<i>Tropaeolum</i>	garden nasturtium
<i>Tussilago farfara</i>	coltsfoot
<i>Typha latifolia</i>	reed mace
<i>Ulex europaeus</i>	common furze
" <i>nanus</i>	dwarf furze
<i>Ulmus campestris</i>	elm
" <i>montana</i>	wytch elm
<i>Urtica dioica</i>	nettle, or stinging nettle
<i>Vaccinium myrtillus</i>	bilberry
" <i>vitis idaea</i>	whortleberry
<i>Valerian officinalis</i>	officinal valerian
<i>Verbascum lychnitis</i>	white mullein
" <i>pulverulentum</i>	yellow hoary mullein
" <i>nigrum</i>	dark mullein
" <i>blattaria</i>	moth mullein
<i>Veronica chamædrys</i>	germander speedwell
<i>Viburnum tinus</i>	laurestinus
" <i>lantana</i>	mealy guelder rose, or wayfaring tree
" <i>opulus</i>	guelder rose
<i>Vicia cracca</i>	tufted vetch
" <i>sylvatica</i>	wood vetch
" <i>lutea</i>	yellow vetch
" <i>sativa</i>	common vetch
" <i>sepium</i>	bush vetch
<i>Viola odorata</i>	sweet violet
" <i>canina</i>	dog violet
" <i>tricolor</i>	wild heartsease
<i>Vitis vinifera</i>	vine

APPENDIX II.

A List of British Lepidoptera, WITH THE TIMES OF THEIR APPEARANCE.

ABBREVIATIONS.—The Roman numerals are used to indicate the Months, thus:—
 i January; ii February; iii March; iv April; v May; vi June; vii July; viii August;
 ix September; x October; xi November; xii December. The abbreviations used for the
 Nomenclators' names are as follow:—*B.* Boisduval, *Ba.* Barrett, *Be.* Bedell, *Ben.* Bentley,
Bjer. Bjerkander, *Bk.* Borkhausen, *Bou.* Bouché, *Br.* Bruand, *C.* Curtis, *Clik.* Clerck, *Cru.*
Crewe., *D.* Duponchel, *Db.* Doubleday, *Dsv.* Desvignes, *Dg.* Douglas, *Don.* Donovan, *E.*
Esper., *Ed.* Edeston, *Evers.* Eversmann, *F.* Fabricius, *Fisch.* Dr. F. Fischer, *Forc.* Forster,
F.R. Fischer E. von Rolerstamm, *Frr.* Freyer, *Fro.* Frolich, *Fu.* Fuessly, *G.* Guenée, *Gm.*
German., *Go.* Goetze, *Gregs.* Gregson, *H.* Hubner, *Hckw.* Hochenwarth, *Hey.* Heyden, *Hf.*
Hufnagel., *Hml.* Hummel, *H.S.* Herrich Schäffer, *Hck.* Hatchet, *Hw.* Haworth, *Hl.* Illiger,
K. Kirby, *Kn.* Knob, *Kol.* Kollar, *Kngs.* Knaggs, *L.* Linné, *Lch.* Leach, *Ld.* Lederer,
Lef. Lefebvre, *Lnig.* Lienig, *Lo.* Logan, *La.* Laspeyres, *Lt.* Latreille, *M.* Mann, *Mc.*
McLachlin., *N.* Newman, *Nt.* Nicelli, *O.* Ochseneheimer, *Ol.* Olivier, *P.* Panzer, *Pal.* Palmer,
Pey. Peyerimhoff, *Rbr.* Rambur, *Rt.* Rottemburg, *Rtz.* Ratzburg, *S.* Scopoli, *S.V.*
Systematisches Verzeichniss der Weiner Gegend., *Sax.* Saxesen, *Sc.* Scott, *Schl.* Schlager,
Si. Sircom, *Sk.* Schrank, *So.* Sodoffsky, *Ss.* Stephens, *Stn.* Stainton, *Tau.* Tauscher, *Tengs.*
Tengstrom., *Thnb.* Thunberg, *Ti.* Tischer, *Tr.* Treitsche, *V.* Vieweg, *Va.* Vaughan, *Vill.* de
Villers., *Wd.* Wood, *Wk.* Wocke, *Wlk.* Wilkinson, *Wsd.* Westwood, *Z.* Zeller, *Zk.* Zincken,
Ztt. Zetterstedt.

DIURNI.

PAPILIONIDÆ

<i>PAPILIO</i> , <i>L.</i>	<i>OVA</i>	<i>LARVÆ</i>	<i>PUPÆ</i>	<i>IMAGOS</i>
<i>MACHAON</i> , <i>L.</i>.....vi		vi to viii	viii	v to vii

PIERIDÆ

LEUCOPHASIA, *Ss.*

<i>SINAPIS</i> , <i>L.</i>	v vi and viii	vi and ix x	vii & ix to iv	iv v and viii
<i>PIERIS</i> , <i>Ss.</i>				

<i>CRATÆGI</i> , <i>L.</i>	vi	viii to v	vi	v vi vii
<i>BRASSICÆ</i> , <i>L.</i>	v and viii	vi and ix	vii & ix to iv	iv to viii

<i>RAPE</i> , <i>L.</i>	v and viii	vi and ix	vii & ix to iv	iv to viii
<i>NAPI</i> , <i>L.</i>	v and viii	vi and ix	vii & ix to iv	iv to viii

<i>DAPLIDICE</i> , <i>L.</i>	v and viii	vi and ix	vii & ix to iv	v and viii
<i>ANTHOCHARIS</i> , <i>B.</i>				

<i>CARDAMINES</i> , <i>L.</i>	v	vii	vii to v	iv v vi
<i>RHODOCERIDÆ</i>				

GONOPTERYX, *L.*

<i>RHAMNI</i> , <i>L.</i>	iv	vi vii	vii	vii to v
<i>COLIAS</i> , <i>F.</i>				

<i>EDUSA</i> , <i>F.</i>	v to ix	vi vii	viii	vi to viii to iv
<i>HYALE</i> , <i>L.</i>	v	vii	viii	vii viii to iv

VANESSIDÆ

<i>ARGYNNIS, F.</i>	<i>ova</i>	<i>LARVÆ</i>	<i>PUPÆ</i>	<i>IMAGOS</i>
<i>PAPHIA, L.</i> VII		VIII to VI	VI	VI VII
<i>AGLAIA, L.</i> VIII		VIII to VI	VI	VI VII
<i>NIOBB, L.</i> VIII		VIII to V	VI	VI VII
<i>ADIPPE, S. V.</i> VIII		VIII to VI	VI	VI VII
<i>LATONA, L.</i> VIII IX		VIII to V	VI	VIII IX
<i>EUPHROSYNE, L.</i> VI		VII to V	IV	V VI and s. VIII
<i>SELENE, S. V.</i> VI		VII to V	V	V VI and s. VIII
<i>MELITÆA, F.</i>				
<i>ARTEMIS, S. V.</i> VI		VIII to IV	IV	V VI
<i>CINXIA, L.</i> VI		VII to V	V	V VI
<i>ATHALIA, E.</i> VII		VIII to V	VI	VI VII
<i>VALESSA, F.</i>				
<i>C-ALBUM, L.</i> v and vii		v and viii	VI and IX	VI VII & IX to IV
<i>URTICÆ, L.</i> iv and vii		v vi and viii	VI and VIII	VI VII & IX to IV
<i>POLYCHLOROS, L.</i> v s. x		s. x to v vi	VII	VII to V
<i>ANTIOPA, L.</i> v		VI VII	VII	VII to V
<i>Io, L.</i> .... .iv v		VI VII	VII	VII VIII to V
<i>ATALANTA, L.</i> v		VI VII	VII	VII VIII to VI
<i>CARDUI, L.</i> VI		VI VII to IX	VII to IX	VII to V
<i>NYMPHALIDÆ</i>				
<i>LIMENITIS, F.</i>				
<i>SIBYLLO, L.</i> VII		VIII to V	VI	VI VII
<i>APATURA, F.</i>				
<i>IRIS, L.</i> VII		VIII to V	VI	VII
<i>SATYRIDÆ</i>				
<i>ARGE, B.</i>				
<i>GALATEA, L.</i> VII		VIII to V	VI	VII
<i>EREbia, B.</i>				
<i>EPIPHRON, Kn.</i>		VIII to V		VI VII
<i>MEDEA, S. V.</i> VIII		IX to V	VI	VII VIII
<i>SATYRUS, F.</i>				
<i>ÆGERIA, L.</i> v and viii		VI VII & IX to III	IV and VII	IV and VII VIII
<i>MEGÆRA, L.</i> v and viii		VI VII & IX to IV	IV and VII	V and VIII
<i>SEMELE, L.</i> VII		VIII to VI	VI	VII
<i>IANIRA, L.</i> VII		VIII to V	VI	VI VII
<i>TITHONUS, O.</i> vii		VIII to VI	VI	VII
<i>HYPERANTHUS, L.</i> VII		VIII to VI	VI	VI VII
<i>CENONYMPHA, H.S.</i>				
<i>DAVUS, L.</i> VI		VIII to V	VI	VI VII
<i>PAMPHILUS, L.</i> V		V VI and VIII	IV and VII	V to X
<i>LYCAENIDÆ</i>				
<i>THECLA, F.</i>				
<i>RUBI, L.</i> V		VII and X	VIII to IV	V VI and s. VIII
<i>QUERCUS, L.</i> VII to IV		V VI	VI	VII
<i>W-ALBUM, Kn.</i> VII to IV		V VI	VI	VI VII
<i>PRUNI, L.</i> VII to III		V VI	VI	VI VII
<i>BETULE, L.</i> X		V VI	VII	VII VIII
<i>POLYOMMATUS, Lt.</i>				
<i>HIPPOTHOE, L.</i> VIII		VIII to VI [to IV VII		VII VIII
<i>PHLEAS, L.</i> VI and X		V VI & VIII & X IV and X		IV & VI VIII & X
<i>LYCÆNA, F.</i>				
<i>BÆTICA, L.</i>		VII to IX		VIII IX
<i>ÆGON, S. V.</i> VII to II		V VI	VI	VII VIII

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	OVA	LARVÆ	PUPÆ	IMAGOS
ARTAXERXES, <i>F.</i>	v	vi	vi	
AGESTIS, <i>S. V.</i>viii	vii and ix to iv	iv and viii	v vi and viii	
ALEXIS, <i>S. V.</i> .....v and ix	iv and viii	v and viii	v vi and viii ix	
ADONIS, <i>S. V.</i> .....x	v and viii viii	v and viii	v vi and viii	
CORYDON, <i>S.</i> .....ix	x to vi	vii	vii viii	
ACIS, <i>S. V.</i>			vi vii	
ALUS, <i>S. V.</i>.....vi	vii	iv	v vi	
ARGIOLUS, <i>L.</i>	vi and ix		iv v and viii	
ARION, <i>L.</i> .....vi	vii to iv?		vi	
<i>ERYCINIDÆ</i>				
NEMEOBIUS, <i>Ss.</i>				
LUCINA, <i>L.</i> .....vi	vii to ix	viii to v	v vi	
<i>HESPERIDÆ</i>				
SYRICHTHUS, <i>B.</i>				
ALVEOLUS, <i>H.</i> .....v	iv		v and s. viii	
THANAOS, <i>B.</i>				
TAGES, <i>L.</i> .....v	vii and ix to iv		v and viii	
HESPERIA, <i>B.</i>				
PANISCUS, <i>E.</i> .....vi	ix		vi	
SYLVANUS, <i>E.</i> .....vii	v and vii		v vi and viii	
COMMA, <i>L.</i> .....viii to iii	vi		vii viii	
LINEA, <i>S. V.</i>.....vii	viii to vi		vii	
ACTÆON, <i>E.</i>	vi	vii	vii viii	

NOCTURNI

<i>SPHINGIDÆ</i>			
SMERINTHUS, <i>O.</i>			
OCELLATUS, <i>L.</i>	viii	ix to v	v vi
POPULI, <i>L.</i> .....v	viii ix		v vi
TILIAE, <i>L.</i>	viii ix		v vi
ACHERONTIA, <i>O.</i>			
ATROPOS, <i>L.</i>	ix x	ix to vi	vii and s. x
SPHINX, <i>O.</i>			
CONVOLVULI, <i>L.</i>	vii		viii ix
LIGUSTRI, <i>L.</i>	ix	x to v	vi
DEILEPHILA, <i>O.</i>			
EUPHORBIAE, <i>L.</i>	viii ix		vi to ix
GALII, <i>S. V.</i>	viii ix x		vi to viii
LINEATA, <i>F.</i>	vi vii		viii ix
CHÆROCAMPA, <i>D.</i>			
CELERIO, <i>L.</i>	viii ix		viii to x
PORCELLUS, <i>L.</i>	viii	x to v	v vi
ELPENOR, <i>L.</i>	viii	x to v	vi
NERII, <i>L.</i>	ix		vi to x
MACROGLOSSA, <i>O.</i>			
STELLATARUM, <i>L.</i> .....v	viii ix		v and ix to ii
FUCIFORMIS, <i>L.</i> .....vi	vii viii		v vi
BOMBYLIFORMIS, <i>O.</i>	vii viii		v vi
<i>SESIDÆ</i>			
SESSIA, <i>F.</i>			
MYOPÆFORMIS, <i>Bk.</i>	iv v		v vi
CULICIFORMIS, <i>L.</i>	iv		v vi
FORMICÆFORMIS, <i>E.</i>	iv v	v	vi
CHRYSIDIIFORMIS, <i>E.</i>	vi		vi vii

	OVA	LARVÆ	PUPÆ	IMAGOS
ICHNEUMONIFORMIS, <i>F.</i>	VII			VI VII
CYNIPIFORMIS, <i>O.</i>	IV V	V		V VI
MUSCÆFORMIS, <i>V.</i>	VII to IX	V		VI VII
TIPIFORMIS, <i>L.</i>	X to IV	V		VI
ANDRENIFORMIS, <i>Ls.</i> ..				VI
SCOLIÆFORMIS, <i>Bk.</i>	IV			VI VII
SPHEGIFORMIS, <i>F.</i>	IV	V		V VI
ASILIFORMIS, <i>Rt.</i>	IV	V		VI
BEMBECIFORMIS, <i>H.</i>	IX to V	V		VII
APIFORMIS, <i>L.</i>	IX to IV	V		V VI
ZENZERIDÆ				
MACROGASTER, <i>D.</i>				
ARUNDINIS, <i>H.</i>	IV			VI
ZENZERA, <i>Lt.</i>				
ÆSCULLI, <i>L.</i> .....VII	VIII to V	VI		VI VII
COSSUS, <i>F.</i>				
LIGNIPERDA, <i>F.</i> .....VII	IX X	XI to V		VI VII
HEPALIDÆ				
HEPIALUS, <i>F.</i>				
HECTUS, <i>L.</i> .....VI	VIII to V	VI		VI
LUPULINUS, <i>L.</i>	VIII to V	V		V VI
SYLVINUS, <i>L.</i>	VII			VII VIII
VELLEDA, <i>H.</i>	VIII to V	V		VI VII
HUMULI, <i>L.</i>	VIII to IV			VI
COCLIOPIDÆ				
LIMACODES, <i>Lz.</i>				
ASELLUS, <i>S.V.</i>	VIII IX	X		VI VII
TESTUDO, <i>S.V.</i>	IX	X		VI
PROCRIDÆ				
PROCRIS, <i>F.</i>				
STATICES, <i>L.</i>	V	VI		VI
GERYON, <i>H.</i>	V			V VI
GLOBULARIAE, <i>H.</i>	V			VI
ZYGÆNIDÆ				
ZYGÆNA, <i>F.</i>				
MINOS, <i>S.V.</i>	V			VII
NUBIGENA, <i>Ld.</i>	VII to IV			VI
EXULANS, <i>Hchw.</i>				VII
TRIFOLII, <i>E.</i>	VII to V	VI		VI
MELILOTI, <i>E.</i>	VI			VI VII
RONICERÆ, <i>E.</i>	VII to V	VI		VI
FILIPENDULÆ, <i>L.</i>	VII to V	VI		VI
SYNTOMIDÆ				
SYNTOMIS, <i>Ill.</i>				
PHEGEA, <i>L.</i>	IX to V			VI VII VIII
NACLIA, <i>B.</i>				
ANCILLA, <i>L.</i>				VI
NOLIDÆ				
NOLA, <i>Lch.</i>				
CUCULLATELLA, <i>L.</i>	V	V		VI VII
CONFUSALIS, <i>H. S.</i>	V	V		V VI
STRIGULA, <i>S. V.</i>	V			VI VII
CENTONALIS, <i>H.</i>				VII
ALBULALIS, <i>H.</i>				VII

LITHOSIDÆ

	OVA	LARVÆ	PUPÆ	IMAGOS
NUDARIA, <i>Ss.</i>				
SENEX, <i>H.</i>	V VI			VII VIII
MUNDANA, <i>L.</i>	V VI			VII
SETINA, <i>Sæ.</i>				
IRRORELLA, <i>L.</i>	V			VI to VIII
CALLIGENIA, <i>D.</i>				
MINIATA, <i>Forst.</i>	VII	VIII to V VI		VI VII
LITHOSIA, <i>F.</i>				
MESOMELLA, <i>L.</i>	VIII to V			VI VII
MUSCERDA, <i>Hf.</i>	V VI			VII VIII
AUREOLA, <i>H.</i>	IX to V			V VI VII
PYGMAEOLA, <i>Db.</i>	IV to VI			VIII
CANIOLA, <i>H.</i>	VI			VIII
DEPLANA, <i>E.</i>	VI	V VI		VI VII
LURIDEOLA, <i>Tv.</i>	VIII to V VI	V VI		VI VII
MOLYBDEOLA, <i>G.</i>	VII to V	VI		VII
COMPLANA, <i>L.</i>	VIII to V VI	VI		VII
GRISEOLA, <i>H.</i>	VIII to VI	VI		VI VII
STRAMINEOLA, <i>Db.</i>	VIII to VI			VI to VIII
QUADRA, <i>L.</i>	V VI	VI		VII VIII
RUBRICOLLIS, <i>L.</i>	VIII IX X	III		V to VII
EULEPIA, <i>C.</i>				
GRAMMICA, <i>L.</i>	V			VI VII
CRIBRUM, <i>L.</i>	VIII to V			VII
<i>EUCHELIDÆ</i>				
DEIOPEIA, <i>Ss.</i>				
PULCHELLA, <i>L.</i>	VII			V to IX
EUCHELIA, <i>B.</i>				
JACOBÆ, <i>L.</i>	V			VI VII
CALLIMORPHA, <i>Lt.</i>				
HERA, <i>L.</i>	IX to V			VIII
DOMINULA, <i>L.</i>	VIII to V			VI
<i>CHELONIDÆ</i>				
EUTHEMONIA, <i>S.</i>				
RUSSULA, <i>L.</i>	VI	IX to V		VI and S. VIII
CHELONIA, <i>Lt.</i>				
PLANTAGINIS, <i>L.</i>	VIII to IV	V		V VI
CAIA, <i>L.</i>	VIII to VI			VII
VILLICA, <i>L.</i>	VIII to V			VI
ARCTIA, <i>B.</i>				
FULGINOSA, <i>L.</i>	IV and VIII			V VI and VIII
MENDICA, <i>L.</i>	VIII	IX to IV		IV to VI
LUBRICIPEDA, <i>L.</i>	VIII	IX to V		V VI
MENTHRASTI, <i>S.V.</i>	VIII	IX to V		V VI
URTICÆ, <i>E.</i>	VIII	X to V		VI
<i>LIPARIDÆ</i>				
LIPARIS, <i>O.</i>				
CHRYSORRHÆA, <i>L.</i>	IX to V			VII VIII
AURIFLUA, <i>F.</i>	IX to V			VII
SALICIS, <i>L.</i>	VIII to V	VI		VII VIII
DISPAR, <i>L.</i>	V			VI VII
MONACHA, <i>L.</i>	V to VII	VII		VII VIII
ORGYIA, <i>O.</i>				
PUDIBUNDA, <i>L.</i>	V VI	IX to IV		V VI

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	OVA	LARVÆ	PUPÆ	IMAGOS
INA, <i>L.</i>	IX to V		VI	
A, <i>H.</i>	VII		VI to VIII	
MIGMA, <i>L.</i>	VI VII	IX to V	VI VII & VIII	
IA, <i>L.</i>	VII	VII to IX	VII VIII X	
[AS, <i>Ss.</i> , <i>L.</i>		VI VII & s. X	X	IV VI s. IX
<i>YCIDAË</i>				
CHIURA, <i>Ss.</i>				
GI, <i>L.</i>	IX to III	V VI	VII	VIII IX
ILOCAMPA, <i>Ss.</i>				
, <i>L.</i>	XI to III	V VI	VIII to X	XI XII
DGASTER, <i>G.</i>				
TRIS, <i>L.</i>	IV	V to VII	VII to I	II III IV
BYX, <i>L.</i>				
RIA, <i>L.</i>	VII to III	V to VII	VII	VII VIII
NSIS, <i>L.</i>	VII to III	VI VII		VII VIII
L, <i>.....</i>		IX to V		V VI
S, <i>Sk.</i>		IX to VI		VI VII VIII
JS, <i>L.</i>		IX to V		VII VIII
II, <i>S.V.</i>		IX to VI		VIII
NESTIS, <i>Gm.</i>				
DRIA, <i>L.</i>		IX to V	VI	VII
OCAMPA, <i>Lt.</i>				
FOLIA, <i>L.</i>		IX to V	VI	VI
LIA, <i>L.</i>		VIII		IV V
ROMIS, <i>O.</i>				
OLORA, <i>L.</i>	IV	VI VII	VIII to III	III IV
URNIA, <i>Sk.</i>				
II, <i>S.V.</i>	V	VIII	X to IV	IV V

GEOMETRÆ

<i>TERIDAË</i>			
APTERYX, <i>Lch.</i>			
CATA, <i>L.</i>	IX to V	VI	VII
<i>MIDÆ</i>			
DNE, <i>D.</i>			
ITARIA, <i>L.</i>	VII to IV	V VI	VI VII
RIA, <i>S.V.</i>	VIII to IV	V VI	VII VIII
ARIA, <i>H.</i>	V VI	VIII	V VI VII
IIA, <i>D.</i>			
IGATA, <i>L.</i>	IV and IX	VI & IX to III	IV to IX
ILIA, <i>D.</i>			
ATA, <i>L.</i>	IX		V VI
ERONA, <i>D.</i>			
RIA, <i>L.</i>	X to IV	V	VI VII
ROCAMPA, <i>Lt.</i>			
RITATA, <i>L.</i>	IX to V	VI	VI VII
OPIA, <i>Ss.</i>			
RIA, <i>L.</i>		IX to IV	V VI
YMENE, <i>D.</i>			
RARIA, <i>L.</i>		VIII IX	X to V
ICALLIA, <i>Ss.</i>			V VI
ARIA, <i>L.</i>		IX to VI	VI VII and s. VIII

SELENIA, <i>H.</i>	OVA	LARVÆ	PUPÆ	IMAGOS
ILLUNARIA, <i>H.</i>	IV and VII	VI and IX	VIII to IV	III IV and VII
LUNARIA, <i>S. V.</i>	VIII	VI and IX X	IX to IV	IV V VI
ILLUSTRARIA, <i>H.</i>				IV V and VII VIII
ODONTOPERA, <i>Ss.</i>				
BIDENTATA, <i>L.</i>	VIII IX		IX to IV	IV V
CROCALLIS, <i>T.</i>				
ELINGUARIA, <i>L.</i> .....VIII to II	V		VI	VII VIII
ENNOMOS, <i>T.</i>				
ALNIARIA, <i>L.</i> .....IX to V	VII VIII		VIII	IX X
TILARIA, <i>Bk.</i> .....IX to V	VI VII		VIII	VIII IX
FUSCANTARIA, <i>Hw.</i> ....IX to V	VI VII		VIII	VIII IX
EROSARIA, <i>S. V.</i> .....IX to V	VI		VII	VII to IX
ANGULARIA, <i>S. V.</i> .....IX to IV	VI to VIII		VI VII	VII to IX
HIMERA, <i>D.</i>				
PENNARIA, <i>L.</i> .....X to IV	V		VIII IX	X XI
AMPHIDASYSDE				
PHIGALIA, <i>D.</i>				
PILOSARIA, <i>S. V.</i>	V VI		IX to XI	XII to III
NYSSIA, <i>D.</i>				
ZONARIA, <i>S. V.</i>	V VI			IX to IV?
HISPIDARIA, <i>S. V.</i> .....IV	V VI		VI to I	II III
LAPOONARIA, <i>B.</i>				
BISTON, <i>Lch.</i>				
HIRTARIA, <i>L.</i> .....IV	VI VII		IX	III IV V
AMPHIDASIS, <i>T.</i>				
PRODROMARIA, <i>S. V.</i>	VI VII		VIII to II	II III IV
BETULARIA, <i>L.</i>	VIII to X		X to IV	V VI
BOARMIDÆ				
HEMEROPHILA, <i>Ss.</i>				
ABRUTARIA, <i>Thnb.</i>	VI		IX to IV	IV V VI VIII
CLEORA, <i>C.</i>				
VIDUARIA, <i>S. V.</i>				VI
GLABRARIA, <i>H.</i>	V VI		VI	VII
LICHENARIA, <i>Hf.</i>	IX to V			VI VII
BOARMIA, <i>Tr.</i>				
REPANDATA, <i>L.</i> .....VII	IX to IV		V	VI VII
RHOMBOIDARIA, <i>S. V.</i> ..VII	IX to IV		V	VI VII
PERFUMARIA, <i>N.</i>.....VII	IV to VI			VI VII
ABIETARIA, <i>S. V.</i> .....VII	IX to VI		VI	VII
CINCTARIA, <i>S. V.</i> .....VI	IX			V VI
ROBORARIA, <i>S. V.</i> .....VII	IX to V		V	VI VII
CONSORTARIA, <i>F.</i> .....VII	VIII			VI VII
TEPHROSIA, <i>B.</i>				
CONSONARIA, <i>H.</i>	VII VIII		X to IV	V
CREPUSCULARIA, <i>S. V.</i> ..	VIII IX		X to I	II III IV
BIUNDULARIA, <i>E.</i>	VI		X to III	IV V
EXTERSARIA, <i>H.</i>	VIII IX		X to V	VI
PUNCTULATA, <i>S. V.</i>	VIII		X to IV	V VI
GNOPHOS, <i>T.</i>				
OBSCURATA, <i>S. V.</i>VII VIII	IX to V			VII
DASYDIA, <i>G.</i>				
OBFUSCATA, <i>S. V.</i>VII	IX to VI			VII VIII
PSODOS, <i>T.</i>				
TREPIDARIA, <i>H.</i>				VII

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MNIOPHILA, <i>B.</i>	ova	LARVÆ	PUPÆ	IMAGOS
CINERARIA, <i>S.V.</i>	V VI			VII
BOLETOBIDÆ				
BOLETOBIA, <i>B.</i>				
FULIGINARIA, <i>L.</i>	VII			VI
GEOMETRIDÆ				
PSEUDOPTERINA, <i>H.S.</i>				
CYTISARIA, <i>S.V.</i>	V VI			VI VII
GEOMETRA, <i>B.</i>				
PAPILIONARIA, <i>L.</i>	X to V		VI	VI VII
SMARAGDARIA, <i>F.</i>	V			VII
NEMORIA, <i>H.</i>				
VERIDATA, <i>L.</i> .....VI	VIII		IX to IV	V VI
IODIS, <i>H.</i>				
VERNARIA, <i>L.</i>	IX to VI			VII
LACTEARIA, <i>L.</i>	IX	X to V		V VI
PHORODESMA, <i>B.</i>				
BAJULARIA, <i>S.V.</i> .....VI VII	VII to V			VI VII S. IX
HEMITHEA, <i>D.</i>				
THYMIARIA, <i>L.</i>	V			VI VII
EPHRIDÆ				
EPHYRA, <i>D.</i>				
PORATA, <i>F.</i>	IX		IX to IV	V VI
PUNCTARIA, <i>L.</i>	VII to IX		VIII to IV	V VI and s. VII
TRILINEARIA, <i>Bk.</i>	VIII to X		IX to IV	V VI
OMICRONARIA, <i>S.V.</i>	VIII to X			V VI
ORBICULARIA, <i>H.</i>	VIII			V VI
PENDULARIA, <i>L.</i>	VII		VIII to IV	IV V VI and s. VII
ACIDALIDÆ				
HYRIA, <i>Ss.</i>				
AURORARIA, <i>H.</i>	VIII to V			V VI VII
ASTHENA, <i>H.</i>				
LUTEATA, <i>S.V.</i>	VIII to X			V VI
CANDIDATA, <i>S.V.</i>	IV			V VI
SYLVATA, <i>S.V.</i>	VIII			VI VII
BLOMERARIA, <i>Dk.</i>	VIII IX			V VI VII
EUPISTERIA, <i>B.</i>				
HEPARATA, <i>S.V.</i>	VIII IX			VI VII
VENUSIA, <i>C.</i>				
CAMBRICARIA, <i>G.</i>	VIII IX			VI VII
ACIDALIA, <i>T.</i>				
OCHRATA, <i>S.</i>				VI
PEROCHRARIA, <i>Fisch.</i> ..				VI
RUBRICATA, <i>S.V.</i> .....VII	VIII to V			VI VII
SCUTULATA, <i>S.V.</i> .....VII	VIII to V			VI VII
BISETATA, <i>Hf.</i> .....VII	VIII to V			VI VII
TRIGEMINATA, <i>Hw.</i> ....VI	VII			VI and VIII
CONTIGUARIA, <i>H.</i>	VIII to V			VI VII
HERBARIATA, <i>F.</i>	X to V			VI VII
RUSTICATA, <i>S.V.</i> .....VII	VIII to V			VII
OSSEATA, <i>S.V.</i>	VIII to IV			VI
DILUTARIA, <i>H.</i>				VI VII
INTERJECTARIA, <i>B.</i>	VIII to V			VI VII
HOLOSERICATA, <i>D.</i> ....VII	VII to V			VI VII
INCANARIA, <i>H.</i> .....VII	IX			VI VII VIII

	OVA	LARVÆ	PUPÆ	IMAGOS
CIRCELLATA, <i>G.</i>	VII	VIII	VI	
ORNATA, <i>S.</i>	VII	VII s. to IV	V to VIII	
PROMUTATA, <i>G.</i>		S. VII VIII to V	VI VIII IX	
STRAMINATA, <i>T.</i>	VII	VII to V	VI VII	
MANCUNIATA, <i>Kugz.</i>		VII	VII VIII	
SUBSERICATA, <i>Hw.</i> ....VII		VII	VI VII VIII	
STRIGARIA, <i>H.</i>		VI	VI	
IMMUTATA, <i>L.</i>		VIII to V	VI VII and s. IX	
REMUTATA, <i>H.</i>		VIII to IV	V VI	
FUMATA, <i>Sz.</i>	VII	VIII to V	VI	
STRIGILATA, <i>S. V.</i>	VII	VIII to VI	VII	
IMITARIA, <i>H.</i>		V VI	VIII	
EMUTARIA, <i>H.</i>	VII	VII to V	VI VIII	
AVERSATA, <i>L.</i>	VII	IX to V	VI VII	
INORNATA, <i>Hw.</i>		VIII	VI VII	
DEGENERARIA, <i>H.</i>		VIII to IV	VI VII	
EMARGINATA, <i>L.</i>	VII	VII	VI VII	
TIMANDRA, <i>B.</i>				
AMATARIA, <i>L.</i>	VII	IX to V	VI VIII	
<i>CABERIDÆ</i>				
CABERA, <i>Tr.</i>				
PUSARIA, <i>L.</i>		VII to IX	V VI	
ROTUNDARIA, <i>Hw.</i>		IX	V	
EXANTHEMARIA, <i>S.</i>	X		X to V	V VI
CORVCIA, <i>D.</i>				
TEMERATA, <i>S. V.</i>	VI	VII	V VI	
TAMINATA, <i>S. V.</i>		VII	V VI	
ALEUCIS, <i>G.</i>				
PICTARIA, <i>C.</i>		VII?	IV	
<i>MACARIDÆ</i>				
MACARIA, <i>C.</i>				
ALTERNATA, <i>S. V.</i>		IX	VI VII	
NOTATA, <i>L.</i>		IX	V VI	
LITURATA, <i>L.</i>		IX	X to IV	V VI VII
HALIA, <i>D.</i>				
VAUARIA, <i>L.</i>		V	VII	
<i>FIDONIDÆ</i>				
STRENIA, <i>D.</i>				
CLATHRATA, <i>L.</i>		X to IV	V VI	
PANAGRA, <i>G.</i>				
PETRARIA, <i>H.</i>	V	VI	V VI	
NUMERIA, <i>D.</i>				
PULVERARIA, <i>L.</i>		VII VIII	IV V VI	
SCODIONA, <i>B.</i>				
BELGIARIA, <i>H.</i>	VI	VIII to IV	V VI	
SELIDOSEMA, <i>H.</i>				
PLUMARIA, <i>S. V.</i>		V	VII VIII	
FIDONIA, <i>Tr.</i>				
CARBONARIA, <i>L.</i>		VII	IV V	
ATOMARIA, <i>L.</i>		VII to V	V VI	
PINIARIA, <i>L.</i>	VI	VIII IX	IV V VI	
PINETARIA, <i>H.</i>	VII to III	IV V	VI VII	
CONSPICUATA, <i>S. V.</i>VII		VIII IX	X to V	VI VII

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MINOA, <i>Tr.</i>	ova	LARVÆ	PUPÆ	IMAGOS
EUPHORBIATA, <i>S.V.</i>VII		VIII IX	X to V	V VII VIII
SCORIA, <i>Sr.</i>				
DEALBATA, <i>L.</i> .....VI		IX to V	V VI	VI
STERRA, <i>H.</i>				
SACRARIA, <i>L.</i> .....VIII		VI and IX		V VII VIII IX X
LYTHRÍA, <i>H.</i>				
PURPURARIA, <i>L.</i>		VIII?		V VI VII
APLASTA, <i>H.</i>				
ONONARIA, <i>Fu.</i>		IV and IX		V VII VIII
ASPILATES, <i>Tr.</i>				
STRIGILLARIA, <i>H.</i> .....VI		VIII to V	V	VI VII
CITRARIA, <i>H.</i> .....V and VIII		VII and X	VIII	V and VIII
GILVARIA, <i>S.V.</i>		IX to VI		VIII
ZERENIDÆ				
ABRAXAS, <i>Lch.</i>				
GROSSULARIATA, <i>L.</i>	V		VI	VI VII VIII
ULMATA, <i>F.</i>	IX			VI VII
LIGDIA, <i>G.</i>				
ADUSTATA, <i>S.V.</i>.....VII	V VI		IX to IV	V VI VII
LOMASPILIS, <i>H.</i>				
MARGINATA, <i>L.</i>	VI and IX			V and VIII
LIGIDÆ				
PACHYCNEMIA, <i>Ss.</i>				
HIPPOCASTANARIA, <i>H.</i> ...		IX to V		V
HYBERNIDÆ				
HYBERNIA, <i>Lz.</i>				
RUPICAPRARIA, <i>S.V.</i>....II	V		VII to I	XII I II
LEUCOPHEARIA, <i>S.V.</i> ...III	V VI		VII to I	I II III
AURANTIARIA, <i>H.</i> .....XI to III	VI VII		VII to IX	X XI
PROGEMMARIA, <i>H.</i>	V VI		VII to I	II III
DEFOLIARIA, <i>L.</i>.....XI to III	V		VII to I	X XI XII
ANISOPTERYX, <i>Ss.</i>				
ÆSCULARIA, <i>S.V.</i>	V VI		X to I	II III IV
LARENTIDÆ				
CHEIMATOBIA, <i>Ss.</i>				
BRUMATA, <i>L.</i> .....XI to III	V			XI XII
BOREATA, <i>H.</i> .....XI to III	VI			X XI XII
OPORABIA, <i>Ss.</i>				
DILUTATA, <i>S.V.</i>.....XI to III	V VI			IX to XII
FILIGRAMMARIA, <i>H.S.</i> ...IX to II	II to IV			VIII IX
LARENTIA, <i>Tr.</i>				
DIDYMATA, <i>L.</i>	IV V			VI
MULTISTRIGARIA, <i>Hw.</i> ...IV	VI			IV
CÆSIATA, <i>S. V.</i> .....VII	IX to V			VI
RUFICINCTATA, <i>G.</i>	V			VII
SALICATA, <i>H.</i>				VI VII
OLIVATA, <i>S. V.</i> .....VIII	X to IV			VII VIII
PECTINITARIA, <i>Fu.</i>	VIII IX			V VI
EMMELESIA, <i>Ss.</i>				
AFFINITATA, <i>Ss.</i>	VIII			VI
ALCHEMILLATA, <i>L.</i>	VIII IX			VI
ALBULATA, <i>S. V.</i> .....VI	VIII		X to IV	V VI
DECOLORATA, <i>H.</i>	VII			VI

	OVA	LARVÆ	PUPÆ	IMAGOS
TÆNIATA, <i>Ss.</i>		VIII?		VI VII
UNIFASCIATA, <i>H.</i>	VIII	IX X		VI VII
BIFASCIATA?				VII VIII
ERICETATA, <i>C.</i>				VI VII
BLANDIATA, <i>S. V.</i>		IX		V VI VII VIII
EUPITHECIA, <i>C.</i>				
VENOSATA, <i>F.</i>	VII			V VI
CONSIGNATA, <i>Bk.</i>	VI	IX to IV		V VI
LINARIATA, <i>S. V.</i>	VIII	IX to IV		V VI
PULCHELLATA, <i>Ss.</i>	VII	IX to IV		V VI
CENTAUREATA, <i>S. V.</i> ..	VIII IX			V to VIII
SUCCENTURIATA, <i>L.</i>	VIII IX			VII
VALERIANATA, <i>H.</i>	VII			VI
SUBFULVATA, <i>Hw.</i>	IX X			VI to VIII
SUBUMBRATA, <i>S. V.</i>	VIII IX			VI
PERNOTATA, <i>G.</i>				
PLUMBEOLATA, <i>Hw.</i>	VII VIII			V VI
ISOGRAMMATA, <i>Tr.</i>	VII VIII			VI
PYGMÆATA, <i>H.</i>	VI VII			V VI
HELVETICATA, <i>B.</i>	IX			IV V
ARCEUTHATATA, <i>Frr.</i>	X			VII
SATYRATA, <i>H.</i>	IX			V VI
EGENARIA, <i>H.S.</i>				VI
CASTIGATA, <i>H.</i>	VIII to X			V VI
TRISIGNATA, <i>H.S.</i>	IX			VI VII
LARICIATA, <i>Frr.</i>	VII			V VI
VIRGAUREATA, <i>Db.</i>	VIII IX			V VI
ALBIPUNCTATA, <i>Hw.</i> ..	IX			V VI
PUSILLATA, <i>S. V.</i>	VI VII			V
IRRIGUATA, <i>H.</i>	VI			IV V VI
PIMPINELLATA, <i>H.</i>	VI and IX			IV V and VIII
FRAXINATA, <i>Cru.</i>	VIII IX	X to IV		V to VII
EXTENSARIA, <i>Frr.</i>				VI
INNOTATA, <i>H.</i>	VIII IX	X		VI VII
INDIGATA, <i>H.</i>	VII			V VI and VIII
CONSTRICHTATA, <i>G.</i>	IX			VII VIII
NANATA, <i>H.</i>	VIII IX to V			V VI and S. VIII
SUBNOTATA, <i>H.</i>	VIII IX			VI VII
CAMPANULATA, <i>H.S.</i> ..	VIII IX			VI VII
VULGATA, <i>Hw.</i>	VII and IX			IV V and VII
EXPALLIDATA, <i>G.</i>	IX			VII VIII
ABSYNTHIATA, <i>L.</i>	IX X			VI VII
MINUTATA, <i>G.</i>	VIII IX to V			VI
ASSIMILATA, <i>Db.</i>	— and IX X			V and VIII
TENUIATA, <i>H.</i>	III IV			VI VII
SUBCILIATA, <i>G.</i>	V			VII
DODONEATA, <i>G.</i>	VI VII			IV V VI
ABBREVIATA, <i>Ss.</i>	VI VII			III IV
EXIGUATA, <i>H.</i>	IX X			V VI
SOBRINATA, <i>H.</i>	V VI			VII
TOGATA, <i>H.</i>	VIII			VI
PUMILATA, <i>H.</i>	VI and —			IV V and VII VIII
CORONATA, <i>H.</i>	VII VIII			IV V

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	OVA	LARVÆ	PUPÆ	IMAGOS
RECTANGULATA, <i>L.</i>	IV V	V VI	VI	
DEBILITATA, <i>H.</i>	IV V		VI	
COLLIX, <i>G.</i>				
SPARSATA, <i>H.</i>	VIII IX		VI	
LOBOPHORA, <i>C.</i>				
SEXALATA, <i>H.</i>	IX		V VI	
HEXAFTERATA, <i>S.V.</i> ..	VIII		IV V	
VIRETATA, <i>H.</i>	VII VIII		V VI	
LOBULATA, <i>H.</i>	VIII		III IV	
POLYCOMMATA, <i>S.V.</i> ..	IV V		IV	
THERA, <i>Ss.</i>				
JUNIPERATA, <i>L.</i>	VIII IX		X	
SIMULATA, <i>H.</i>	VI and X		IV V and VIII	
VARIATA, <i>S.V.</i>	VII and III to V		VI and VIII	
FIRMATA, <i>H.</i>	IV V		VII and IX	
YPSIPETES, <i>Ss.</i>				
RUBERATA, <i>Frr.</i>	IX	IV	V VI	
IMPLUVIATA, <i>S.V.</i>	VIII IX	III IV	V	
ELUTATA, <i>H.</i>	X to V	VI	VI VII	
MELANTHIA, <i>D.</i>				
RUBIGINATA, <i>S.V.</i>	V VI		VII	
OCELLATA, <i>L.</i>	VII VIII	VIII to V	V VI	
ALBICILLATA, <i>L.</i>	VIII IX	VIII to V	V VI VII	
MELANIPPE, <i>D.</i>				
HASTATA, <i>L.</i>	VIII	IX to V	VI VII	
TRISTATA, <i>L.</i>	Taken among junipers, in Scotland.			
LUCTUATA, <i>H.</i>	VIII IX	XI to V	VI VII	
Probably confounded with Tristata.				
PROCCELLATA, <i>S.V.</i>	VIII IX	X to V	V VI VII	
UNANGULATA, <i>Hw.</i>	VII VIII		VI VII	
RIVATA, <i>H.</i>	VI and IX		VII VIII	
SOCIATA, <i>Bk.</i>	VI and IX		V and VII	
MONTANATA, <i>S.V.</i>	VI VII VIII	X to III	IV	V VII VIII
GALIATA, <i>S.V.</i>	VII and IX			V VI and IX
FLUCTUATA, <i>L.</i>	VI and IX			IV V and VIII
ANTICLEA, <i>Ss.</i>				
SINUATA, <i>S.V.</i>	VIII		VI	
RUBIDATA, <i>S.V.</i>	VIII	X to V	VI	
BADIATA, <i>S.V.</i>	VI	VII to III	III IV	
DERIVATA, <i>S.V.</i>	VI	VII to III	III IV V	
BERBERATA, <i>S.V.</i>	VI and IX			V and VIII
COREMIA, <i>G.</i>				
MUNITATA, <i>H.</i>	X to III	IV	VI VII	
PROPUGNATA, <i>S.V.</i>	IX		V VI	
FERRUGATA, <i>L.</i>	VII and IX		V VI and VIII	
UNIDENTARIA, <i>Hw.</i>	VIII		V VI and VIII	
QUADRIFASCIARIA, <i>G.</i> ..	IV V and VIII		VI VII	
CAMPTOGRAMMA, <i>Ss.</i>				
BILINEATA, <i>L.</i>	IV		VI VII	
FLUVIATA, <i>H.</i>	VIII	IX	VII and IX to V	
PHIBALAPTERYX, <i>Ss.</i>				
TERSATA, <i>S.V.</i>	IX		VI VII	
LAPIDATA, <i>H.</i>	V VI		— and VIII	
LIGNATA, <i>H.</i>	VII and IX	VIII & IX to IV	V VI VII VIII	

	OVA	LARVÆ	PUPÆ	IMAGOS
POLYGRAMMATA, <i>Bk.</i> ..				III and VIII IX-
VITALBATA, <i>S. V.</i>	VII VIII	VI and X		V VI and VIII
SCOTOSIA, <i>Ss.</i>				
DUBITATA, <i>L.</i> IV	VI	VII		VIII to III
VENTULATA, <i>S. V.</i> VII to III?	VI			VI VII
RHAMNATA, <i>S. V.</i>	V VI	VI		VI VII
CERTATA, <i>H.</i>	VI VII			V VI
UNDULATA, <i>L.</i>	IX X			VI VII
CIDARIA, <i>Tz.</i>				
PSITTACATA, <i>S. V.</i>	VII VIII	IX		IX XI to III
MIATA, <i>L.</i>	VIII	IX		IX X to V
PICATA, <i>H.</i> VII	VIII	IX to V		VI VII
CORYLATA, <i>Thn&</i> VI	VIII IX			V VI
SAGITTATA, <i>F.</i> VII	VIII	X to V		VII
RUSSATA, <i>S. V.</i> V and VIII	VII and X to IV	VII and V		V VI and VIII
IMMANATA, <i>Hw.</i> VIII to III	V to VII			VII VIII IX
SUFFUMATA, <i>S. V.</i>	IX X	III		IV V
SILACEATA, <i>S. V.</i>	VII and IX	VII and X to IV		V VI and VIII
RETICULATA, <i>S. V.</i>				VII
PRUNATA, <i>L.</i> VII to IV	V VI	VI		V VI VII
TESTATA, <i>L.</i> VIII to IV	V	VI		VII and IX
POPULATA, <i>S. V.</i> VIII to IV	V			VII
FULVATA, <i>Fors.</i> VII	V			VI VII
PYRALIATA, <i>S. V.</i> VIII to III	V			VII
DOTATA, <i>L.</i> VIII to IV				VI VII
PELURGA, <i>H.</i>				
COMITATA, <i>L.</i>	VIII IX	X to VI		VII
EUBOLIDÆ				
EUBOLIA, <i>D.</i>				
CERVINARIA, <i>S. V.</i> XI to IV	VI VII	VIII		IX X
MENSURARIA, <i>S. V.</i>	VI			VI VII VIII
MENIATA, <i>S.</i>	V			VIII
PALUMBARIA, <i>S. V.</i>	V			VI
BIPUNCTARIA, <i>S. V.</i>	X to V			VII
LINEOLATA, <i>S. V.</i> V and VIII	S. IV V VI & IX	X to IV		V VI VII VIII
CARSIA, <i>H.</i>				
IMBUTATA, <i>H.</i>	VI			VII
ANAITIS, <i>B.</i>				
PLAGIATA, <i>L.</i>	VII and X to IV			V VI and VIII IX
LITHOSTEGE, <i>H.</i>				
GRISEATA, <i>S. V.</i> VI	VII			VI VII
CHESIAS, <i>Tz.</i>				
SPARTIATA, <i>F.</i> X to IV	V VI			IX X
OBLIQUARIA, <i>S. V.</i>	VII VIII IX	VIII to IV		V VI VII
SIONIDÆ				
TANAGRA, <i>D.</i>				
CHÆROPHYLLATA, <i>L.</i> ..VII to II	V			VI VII
DREPANULIDÆ				
PLATYPTERYX, <i>Ls.</i>				
LACERTULA, <i>H.</i>	VI	VI and VIII IX		IV V VII and S. IX
SICULA, <i>S. V.</i>	V VI			V VI
FALCULA, <i>S. V.</i>	VII and X	V		V and VIII

	OVA	LARVÆ	PUPÆ	IMAGOS
HAMULA, <i>S. V.</i>		VI and IX		V VI and s. VIII
UNGUICULA, <i>H.</i>	VI	VII and IX X		V VI and s. VIII
CILIX, <i>Lch.</i>				
SPINULA, <i>S. V.</i>		V VI and VII	VI and VII	V VI and VIII

PSEUDO-BOMBYCES**DICRANURIDÆ****DICRANURA, *Lt.***

BICUSPIS, <i>Bk.</i>		VIII IX X	X to IV	IV V
FURCULA, <i>L.</i>	VI	VI VIII IX	IX to V	V VI VII
BIFIDA, <i>H.</i>	VI	VII VIII IX	IX to IV	V VI VII
VINULA, <i>L.</i>	VI	VII VIII	VIII to V	V VI
STAUROPUS, <i>Gm.</i>				
FAGI, <i>L.</i>		VIII IX	X to V	VI VII
PETASIA, <i>Ss.</i>				
CASSINEA, <i>F.</i>	XI to IV	V VI	VII to X	X XI XII
NUBECULOSA, <i>E.</i>	IV	V VI		III IV
PYGAERIDÆ				
PYGAERA, <i>O.</i>				
BUCEPHALA, <i>L.</i>		VII VIII IX	X to V	V VI VII
CLOSTERA, <i>Ss.</i>				
CURTULA, <i>L.</i>	IV and VII	V and VIII IX	VI & IX to III	IV V and VII
ANACHOREATA, <i>S. V.</i>		VII		VIII
RECLUSA, <i>S. V.</i>		VII and IX		V and VIII
NOTODONTIDÆ				
GLUPHISIA, <i>B.</i>				
CRENATA, <i>E.</i>		VIII		V VI
PTILOPHORA, <i>Ss.</i>				
PLUMIGERA, <i>S. V.</i>	XI to IV	V VI		X XI
PTILODONTIS, <i>Ss.</i>				
PALPINA, <i>L.</i>		VII and IX		V VI and VII
NOTODONTA, <i>O.</i>				
CAMELINA, <i>L.</i>	VI	VII and IX		V and VIII
CUCELLINA, <i>S. V.</i>		VIII IX	X to V	V and s. VIII
CARMELITA, <i>E.</i>		VI VII		III IV
DICTEA, <i>L.</i>		VI and IX		V VII and VIII
DICTAOIDES, <i>E.</i>	VI	VII and IX		V VI VII
DROMEDARIUS, <i>L.</i>	VI	VII & VIII IX	X to V	V VI and s. VIII
TRILOPHUS, <i>S. V.</i>		VII VIII IX		V to VIII
ZICZAC, <i>L.</i>		VI and IX		V and VIII
TREPIDA, <i>E.</i>		VIII	IX to IV	IV V VI
CHAONIA, <i>S. V.</i>		VI VII VIII		IV V
DODONEA, <i>S. V.</i>		VII VIII IX	X to V	V VI
DILOBA, <i>Ss.</i>				
CÆRULOCEPHALA, <i>L.</i> ..IX		V VI	VII VIII	IX

NOCTUÆ**TRIFIDÆ****BOMBYCIFORMES****NOCTUO-BOMBYCIDÆ****THYATIRA, *O.***

DERASA, <i>L.</i>		VIII IX		VI VII
BATIS, <i>L.</i>		VIII IX	X to V	V VI VII & IX X
CYMATOPHORA, <i>Tr.</i>				
DUPLARIS, <i>L.</i>		VIII IX	X to V	V VI VII

	OVA	LARVÆ	PUPÆ	IMAGOS
FLUCTUOSA, <i>H.</i>	IX X	X to V	VI VII	
DILUTA, <i>S. V.</i>	V VI	VII	VIII IX	
OR, <i>S. V.</i>	VI VII VIII	IX X	VI VII	
OCULARIS, <i>L.</i>	VII VIII IX	IX X	V VI	
FLAVICORNIS, <i>L.</i>	VI VII	IX	III	
RIDENS, <i>F.</i> .....IV	VI VII	VIII	III IV	
<i>BRYOPHILIDÆ</i>				
BRYOPHILA, <i>Tz.</i>				
GLANDIFERA, <i>S. V.</i> ....IX	X to IV V	VI	VII VIII	
PERLA, <i>S. V.</i>	X to IV V VI	V VI	VII VIII IX	
ALCE, <i>F.</i>			VII VIII	
<i>BOMBYCOIDÆ</i>				
DIPHTHERA, <i>O.</i>				
ORION, <i>E.</i>	VII VIII IX	X to V	VI VII	
ACRONYCTA, <i>Tz.</i>				
TRIDENS, <i>S. V.</i>	VIII IX X	X to V	VI VII	
PSI, <i>L.</i>	VIII IX	X to V	V VI VII	
LEPORINA, <i>L.</i>	V VI VIII IX	X to V	V VI VII	
ACERIS, <i>L.</i>	VII	VIII IX	V VI VII	
MEGACEPHALA, <i>S. V.</i>	VI VII VIII	IX to IV	V VI	
STRIGOSA, <i>S. V.</i>	VII VIII IX	X to V	VI VII	
ALNI, <i>L.</i>	VII VIII IX	VIII to IV	V VI VIII IX	
LIGUSTRI, <i>S. V.</i>	VIII IX	X to V	V VI VII	
RUMICIS, <i>L.</i>	VI VII VIII	IX to IV	V VI VII	
AURICOMA, <i>S. V.</i>	VI VII	VII	VII VIII to V	
MENTHANTHIDIS, <i>E.</i>	VI VII VIII		VI	
MYRICE, <i>G.</i>	VIII IX		V VI S. VII	
SIMYRA, <i>O.</i>				
VENOSA, <i>Bk.</i>	VI	VIII IX	VI	
GENUINÆ				
<i>LEUCANIDÆ</i>				
SYNIA, <i>D.</i>				
MUSCULOSA, <i>H.</i>			VIII	
LEUCANIA, <i>Tz.</i>				
CONIGERA, <i>S. V.</i>	III to V		VI VII	
VITELLINA, <i>H.</i>	X to II		IX X XI	
TURCA, <i>L.</i>	II III		VI VII	
LITHARGYRIA, <i>E.</i>	I III IV V		VI VII to III?	
ALBIPUNCTA, <i>S. V.</i>			VIII IX X S.	
EXTRANEA, <i>G.</i>			IX	
OBSOLETA, <i>H.</i>	VIII IX		VI VII	
LOREVI, <i>D.</i>			VII	
PUTRESCENS, <i>H.</i>	X		VII VIII	
LITTORALIS, <i>C.</i>	VIII to IV V		VI VII	
PUDORINA, <i>S. V.</i>	III IV		VI VII	
COMMA, <i>L.</i>	VIII to IV		VI VII and s. x	
L-ALBUM, <i>L.</i>			VI IX X	
STRAMINEA, <i>Tz.</i>	II III IV		VI VII VIII	
IMPURA, <i>H.</i>	X to III IV V		VI VII	
PALLENS L,	X to III IV		VI VII VIII	
PHRAGMITIDIS, <i>H.</i>	VIII to V		VI VII	
TAPINOSTOLA, <i>Ld.</i>				
BONDII, <i>Kaggs.</i>			VI VII	
ELVMI, <i>Tz.</i>	V		VI VII	

MELIANA, C.	OVA	LARVÆ	PUPÆ	IMAGOS
FLAMMEA, C.				V VI
SENATA, Ss.				
ULVÆ, H.		IX to III IV		VI VII
NONAGRIA, O.				
DESPECTA, Tr.				VI VII VIII
FULVA, H.	V VI			VIII IX
CONCOLOR, G.				VI
HELLMANNI, Evers	VI			VI
NEURICA, H.	IV V VI			VII VIII
BREVILINEA, Kngs.				VIII
GEMINIPUNCTA, Htch.	V VI	VII		VII VIII
CANNE, O.	V			VIII
TYPHAE, E.	VII VIII			IX
LUTOSA, H.	X to VI	VII		VIII IX X
APAMIDÆ				
GORTYNA, O.				
FLAVAGO, S. V.	IX	VII VIII	VIII IX	IX
HYDRÆCIA, G.				
NICTITANS, L.	V VI			VII VIII IX
PETASITIS, Db.	VI VII			VIII IX
MICACEA, E.	V VI VII			VIII IX X
AXYLIA, H.				
PUTRIS, L.	VIII	X to V		VI VII
XYLOPHASIA, Ss.				
RUREA, F.	IV	IV V		V VI VII
LITHOXYLEA, S. V.	V VI			VI VII
SUBLISTRIS, E.				VI VII
POLYDON, L.		IV V		VI VII VIII
HEPATICA, Clk.	VIII to III IV			VI VII
SCOLOPACINA, E.	V			VII VIII
DIPTERYGIA, Ss.				
PINASTRI, L.		VIII IX		VI VII
XYLOMIGES, G.				
CONSPICILLARIS, L.	VI VII VIII			III IV V
APOROPHYLA, G.				
AUSTRALIS, B.	X XI to III IV			VII VIII IX X
LAPHYGMIA, G.				
EXIGUA, H.	VII	VIII IX		VIII to X
NEURIA, G.				
SAPONARIAE, Bk.		VII VIII		V VI VII VIII
HELIOPHOBUS, B.				
POPULARIS, F.	IV V	VI VII		VII VIII IX
HISPIDA, H.	XI			IX
CHARÆAS, Ss.				
GRAMINIS, L.	VI			VII VIII IX
PACHETRA, G.				
LEUCOPHÆA, S. V.	X to IV			V VI VII
CERIGO, Ss.				
CYTHEREA, F.	IX to IV			VII VIII
LUPERINA, B.				
TESTACEA, S. V.	III			VIII IX
GUENÉEI, Db.				
DUMERILI, D.				VIII
CESPITIS, S. V.	IV V VI			VIII IX

	OVA	LARVÆ	PUPÆ	IMAGOS
CURSORIA, <i>Hf.</i>	V VI VII			VII VIII
NIGRICANS, <i>L.</i> .....VII	V VI			VII VIII
TRITICI, <i>L.</i>	VI VII			VII VIII
AQUILINA, <i>S. V.</i>	V			VII VIII
OBELISCA, <i>S. V.</i>	V			VIII
AGATHINA, <i>D.</i>	IV V	VI VII		VIII IX
PORPHYREA, <i>S. V.</i> .....VII	VIII to IV V			VI VII VIII
PRÆCOX, <i>L.</i>	V VI VII	VII		VII VIII X
RAVIDA, <i>S. V.</i>	IV V			VI VII VIII
HELVETINA, <i>B.</i>				VII
PYROPHILA, <i>S. V.</i>	VIII			VI VII VIII
LUCERNEA, <i>L.</i>	II III IV	VI		VII
ASHWORTHII, <i>Db.</i>	IX X to III IV V			VII VIII
TRIPHÆNA, <i>O.</i>				
IANTHINA, <i>S. V.</i>	VIII to IV V			VII VIII
FIMBRIA, <i>L.</i>IX	X to III IV V			VI VII VIII
INTERJECTA, <i>H.</i>	III IV			VII VIII
SUBSEQUA, <i>S. V.</i>	X to III IV			VII VIII
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PRONUBA, <i>L.</i>	VIII to III IV V VI			V VI VII VIII
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GLAREOSA, <i>E.</i>	VI			VIII IX
DEPUNCTA, <i>L.</i>	IV V			VII VIII
AUGUR, <i>F.</i>VII	VIII to IV V			VI VII VIII
PLEcta, <i>L.</i>	VII to IV			VI VII VIII
FLAMMATRA, <i>S. V.</i>				VII
C.-NIGRUM, <i>L.</i>	IV and X			V VI VII VIII IX
DITRAPEZIUM, <i>Bk</i>	V			VII
TRIANGULUM, <i>Hf.</i>	IV V			VI VII
RHOMBOIDEA, <i>E.</i>	IX to IV V			VII VIII
BRUNNEA, <i>S. V.</i>	IV V			VI VII VIII
FESTIVA, <i>S. V.</i>.....VII	VII to V			VI VII VIII
CONFLUA, <i>Tr.</i>	VIII to V			VI VII VIII
DAHLII, <i>H.</i>	IX X XI to IV V			VI VII VIII IX
SUBROSEA, <i>Ss.</i>	V VI			VII
RUBI, <i>V.</i>	VI VII			V VI VII VIII
UMBROSA, <i>H.</i>	VIII to IV V			VII VIII
BAIA, <i>S. V.</i>	IV V			VI VII VIII
SOBRINA, <i>G.</i>				VII VIII
NEGLECTA, <i>H.</i>	X to V			VII VIII IX
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TRACHEA, <i>H.</i>				
PINIPERDA, <i>P.</i>	VI VII	VIII to II		III IV
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ALPIN, <i>Wsd.</i>				VII VIII
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RUBRICOSA, <i>S. V.</i>	V VI VII	VIII to III		III IV V
INSTABILIS, <i>S. V.</i>	V VI VII	VIII to III		III IV
OPIMA, <i>H.</i>.....IV	V VI			III IV V
POPULETI, <i>F.</i>	VI VII	VII to III		III IV V

	OVA	LARVÆ	PUPÆ	IMAGOS
STABILIS, <i>S. V.</i>	V VI VII	VIII to III	III IV	
GRACILIS, <i>S. V.</i> .....v	V VI VII	VIII to III	III IV	
MINIOSA, <i>S. V.</i> .....IV	V VI	VII to II	III IV	
MUNDA, <i>S. V.</i>	V VI	VII to III	III IV	
CRUDA, <i>S. V.</i>	V VI VII	VIII to III	III IV	
ORTHOSSIA, <i>Tz.</i>				
SUSPECTA, <i>H.</i>	V		VII VIII	
UPSILON, <i>S. V.</i>	V VI	VI	VI VII	
LOTA, <i>L.</i> .....x	IV to VI		IX X	
MACILENTA, <i>H.</i>	IV V		IX X	
ANCHOCELIS, <i>G.</i>				
RUFINA, <i>L.</i>	V		VIII IX X	
PISTACINA, <i>S. V.</i>	IV V VI		VIII IX X	
LUNOSA, <i>Hw.</i>	X to IV		IX X	
LITURA, <i>L.</i>	V VI		VII VIII IX	
CERASTIS, <i>O.</i>				
VACCINII, <i>L.</i>	VI VII		IX X XI to III IV	
SPADICEA, <i>G.</i>	V VI		IX X XI to III IV	
ERYTHROCEPHALA, <i>S. V.</i>	V		IX X XI to III	
SCOPELOSOMA, <i>C.</i>				
SATELLITIA, <i>L.</i> .....III	V VI		IX X XI to II III IV	
DASYCAMPJA, <i>G.</i>				
RUBIGINEA, <i>S. V.</i> .....III	V VI VII		IX X XI to III	
HOPORINA, <i>B.</i>				
CROCEAGO, <i>S. V.</i>.....IV	V VI	VII	IX X to III IV	
XANTHIA, <i>O.</i>				
CITRAGO, <i>L.</i>	V VI	VIII	VIII IX	
CERAGO, <i>S. V.</i>	IV V	VIII	VI VII VIII IX	
SILAGO, <i>H.</i>	IV to VI		VIII IX X	
AURAGO, <i>S. V.</i>	V VI		VIII IX X	
GILVAGO, <i>E.</i>	V VI	VIII	VIII IX	
FERRUGINEA, <i>S. V.</i>	IV V VI	VII VIII	VIII IX X	
CIRRHOËDIA, <i>G.</i>				
XERAMPELINA, <i>H.</i>VIII IX	X to V VI VII	VII VIII	VIII IX	
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TETHEA, <i>O.</i>				
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EUPERIA, <i>G.</i>				
FULVAGO, <i>S. V.</i>	VI		VII VIII IX	
DICYCLA, <i>G.</i>				
Oo, <i>L.</i>	V VI		VI VII VIII	
COSMIA, <i>O.</i>				
TRAPEZINA, <i>L.</i>VIII	IV V VI		VII VIII	
PYRALINA, <i>S. V.</i>	IV V		VIII	
DIPFINIS, <i>L.</i>	V VI		VII VIII	
AFFINIS, <i>L.</i>	V		VII VIII	
HADENIDÆ				
EREMOBIA, <i>Ss.</i>				
OCHROLEUCA, <i>S. V.</i>	V VI		VII VIII IX	
DIANTHÆCIA, <i>B.</i>				
IRREGULARIS, <i>Hf.</i>	VIII		VI VII	
CARPOPHAGA, <i>Bk.</i>	VII VIII S. IX X	X to IV	V VI VII	
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CAPSINCOLA, <i>S. V.</i>VI	VII VIII IX		V VI and VIII
CUCUBALI, <i>S. V.</i>VI	VII VIII		V VI and VIII
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CæSIA, <i>S. V.</i>VI	VII VIII		VI VII
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SERENA, <i>S. V.</i>	VII VIII	IX to V	VI VII
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CHI, <i>L.</i>	IV V	VI	VII VIII IX
XANTHOMISTA, <i>H.</i>	VI VII	VII	VIII IX
FLAVINCINTA, <i>S. V.</i>X	VI VII		VIII IX
DASYPOLIA, <i>G.</i>			
TEMPLI, <i>Thrb.</i> .....III	IV V VI VII	VIII	IX X XI II III IV
EPUNDA, <i>D.</i>			
LUTULENTA, <i>S. V.</i> ....X	X to III IV		VIII IX
NIGRA, <i>Hw.</i>	V VI		VIII IX X
VIMINALIS, <i>F.</i> .....VIII	IV V VI		VII VIII
LICHNEA, <i>H.</i>	XI to VI VII	VI VII	VIII IX
VALERIA, <i>Gm.</i>			
OLEAGINA, <i>S. V.</i>	V VI		III IV
MISELIA, <i>Ss.</i>			
BIMACULOSA, <i>L.</i>	V		VIII
OXYACANTHA, <i>L.</i>	V VI VII	VIII	IX X
AGRIOPIS, <i>B.</i>			
APRILINA, <i>L.</i>	VI VII	VII VIII IX	IX X
PHLOGOPHORA, <i>O.</i>			
METICULOSA, <i>L.</i>	XI to IV		IV to X
EMPYREA, <i>H.</i> .....IX X	XI to IV V		IX X
EUPLEXIA, <i>Ss.</i>			
LUCIPARA, <i>L.</i>	VIII IX		V VI VII
APLECTA, <i>G.</i>			
HERBIDA, <i>S. V.</i>	VIII to IV		VI VII
OCULTA, <i>L.</i>	IV V		VI VII VIII IX
NEBULOSA, <i>Hf.</i>	X to IV V		VI VII VIII
TINCTA, <i>Brahm</i>	IX X to IV V		VI VII VIII
ADVENA, <i>S. V.</i>	VIII IX to III IV		VI VII X
HADENA, <i>O.</i>			
SATURA, <i>S. V.</i>	VI		VIII
ADUSTA, <i>E.</i>	VII VIII IX	IV	V VI VII
PROTEA, <i>S. V.</i>	V VI	VII	VIII IX
GLAUCIA, <i>H.</i>	VII VIII	IX to V	VI VII
DENTINA, <i>S. V.</i>	V VI		V VI VII
PEREGRINA, <i>Tv.</i>	V VI VII	VII	VIII IX
CHENOPODIA, <i>S. V.</i>.....VI	VII VIII IX		V VI VII VIII
ATRIPLICIS, <i>L.</i>	VIII IX		VI
SUASA, <i>S. V.</i>	VII VIII X?		V VI S. VIII
OLERACEA, <i>L.</i>	VIII IX	X to IV	VI VII
PISI, <i>L.</i>	VIII IX X		V VI VII
THALASSINA, <i>Bk.</i>	VII VIII	VIII to V	V VI VII
CONTIGUA, <i>S. V.</i>	VIII IX		V VI VII
GENISTA, <i>Bk.</i>	VII VIII IX		V VI VI
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<i>LITHORIZA, Bk.</i>	VI VII VIII	X to II		III IV
<i>CLOANTHA, B.</i>				
<i>PERSPICILLARIS, L.</i>	VII VIII			V
<i>SOLIDAGINIS, H.</i>	V VI			VIII IX
<i>CALOCAMPA, Sr.</i>				
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<i>LAMBDA, F.</i>	V VI			IX X
<i>FURCIFERA, Hf.</i>III	V VI	VII		VIII IX X to IV
<i>RHIZOLITHA, S. V.</i>	V VI VII			IX X XII to III IV
<i>SEMBIRUNNKA, Hw.</i>	VII			IX X to III IV
<i>PETRIFICATA, S. V.</i>	V VI VII			IX X to III IV
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<i>LYCHNITIS, Rbr.</i>	VII VIII IX			VI VII
<i>ASTERIS, S. V.</i>	VIII IX			V VI VII
<i>GNAPHALIA, H.</i>	VII VIII			VI
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<i>CHAMOMILLA, S. V.</i>	V VI S. VIII	VII & IX to XII		IV V VII and XI
<i>UMBRATICA, L.</i>VI VII	VII VIII IX	IX		VI VII
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<i>MARGINATA, F.</i>	VII VIII			V VI VII and IX
<i>PELTIGERA, S. V.</i>	VII VIII			VI to IX to IV
<i>ARMIGERA, H.</i>	VI VII			VIII IX X
<i>DIPSACEA, L.</i>	VIII IX	X to V		VI VII
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<i>ANARTA, Tr.</i>				
<i>MELANOPA, Thnb.</i>				VI
<i>CORDIGERA, Thnb.</i>	VIII			V VI
<i>MYRTILLI, L.</i>	S. VII to X & S. III IV			V VI VII
<i>HELIODES, G.</i>				
<i>ARBUTI, F.</i>	VI VII			V VI
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<i>SULPHURALIS, L.</i>	VI VII VIII			VI VII VIII
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<i>ACONTIIDÆ</i>				
<i>ACONTIA, Tr.</i>				
<i>LUCTUOSA, S. V.</i>VI	V to VII			V VI VII VIII IX
<i>SOLARIS, S. V.</i>				VII
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<i>ERASTRIA, Tr.</i>				
<i>VENUSTULA, H.</i>	VIII			V VI VII
<i>FUSCULA, S. V.</i>	VIII IX			VI VII
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<i>ARGENTULA, H.</i>	VIII	IX		VI
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<i>HYDRELIA, G.</i>				
<i>UNCIA, S. V.</i>	VII VIII			VI VII
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PYRAMIDEA, <i>L.</i>	V VI			VII VIII IX
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CATEPHIA, <i>O.</i>				
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FUNEBRANA, <i>Tr.</i> VIII IX	VI		PUPILLANA, <i>L.</i> VI	VIII	
ENDOPISA, <i>G.</i>			CONTERMINANA, <i>H. S.</i> VII	VI	
NIGRICANA, <i>F.</i> VII	VI VII		TRYCHERIS, <i>G.</i>		
PISANA, <i>G.</i> VII VIII to X	VI		MEDIANA, <i>S. V.</i> VII	VI VII	
STIGMONOTA, <i>G.</i>			PIRALOIDÆ		
DORSANA, <i>F.</i> VII	VI VII		SIM/ETHIS, <i>Lch.</i>		
LEGUMINANA, <i>Z.</i> VIII?	VI		VIBRANA, <i>H.</i> V and VI	VI and VII	
CONIFERANA, <i>Rtz.</i> X IV	VI VII		CHOREUTES, <i>Tr.</i>		
LEPLASTRIANA, <i>C.</i> X IV	VII		SCINTILULANA, <i>H.</i> VI	VII VIII	
COROLLANA, <i>H.</i> I II	VII		XYLOPODA, <i>Lt.</i>		
PERLEPIDANA, <i>Hw.</i> VII	V VI		FABRICIANA, <i>L.</i> IV VI VIII	V IX	
INTERNANA, <i>G.</i>	VII		PARIANA, <i>L.</i> VIII	IX	
COMPOSANA, <i>F.</i>	VI VIII		CONCHYLIDÆ		
WEIRANA, <i>Dg.</i> VIII IX	VI		LOBESIA, <i>G.</i>		
REDIMITANA, <i>G.</i> IX V	VII		RELIQUANA, <i>H.</i>	V	
TRAUNIANA, <i>S. V.</i> ...	VI		SERVILLANA, <i>D.</i> X	V VI	
REGIANA, <i>Z.</i> X to V	VII		EUP/CECILIA, <i>Ss.</i>		
GERMARANA, <i>H.</i> IX	V VI		NANA, <i>Hw.</i> III	VI	
ROSETICOLANA, <i>Z.</i> IX	VII		DUBITANA, <i>H.</i> V & IX	VII VIII	
OBROBANA, <i>Tr.</i> VIII X	VI VIII		ATRICAPITANA, <i>Ss.</i> IX	VII	
DICRORAMPHA, <i>G.</i>			MACULOSANA, <i>Hw.</i> IX	V VI	
POLITANA, <i>S. V.</i> X V VI	VII		SODALIANA, <i>Hw.</i> ..	VI VII	
ALPINANA, <i>Tr.</i> V VI	VI VIII		HYBRIDELLANA, <i>H.</i> VIII	VI	
SEQUANA, <i>H.</i>	V		AMBIGUANA, <i>H.</i> V	VII	
PETIVERANA, <i>L.</i> IV V	VI to VIII		GEYERIANA, <i>H. S.</i> ..		
PLUMBANA, <i>S.</i> IX X	V VI		MANNIANA, <i>F. R.</i> ..	VI	
SATURNANA, <i>G.</i>	VII VIII		DEGREYANA, <i>Mc.</i> VI?	V and VII	
PLUMBAGANA, <i>Tr.</i> IX X	VI		ANGUSTANA, <i>H.</i> V	VII VIII	
ACUMINATANA, <i>Z.</i> IV V	VI VIII IX		CURVISTRIGANA, <i>Wlk.</i> VII	V VI	
HERBOSANA, <i>Ba.</i> ...	VI VII		VECTISANA, <i>Wsd.</i> V & VIII	V & VII	
SENECTANA, <i>G.</i>			UDANA, <i>G.</i> IV	V VI	
SIMPPLICIANA, <i>Hw.</i> IV V	VI to VIII		NOTULANA, <i>Z.</i> IX	V VI	
TANACETANA, <i>Stn.</i> I II	VII		RUPICOLANA, <i>C.</i> IV	V VI VII	
CONSORTANA, <i>Ss.</i> IV V VI	VII		FLAVICILIANA, <i>Db.</i>	VII	
PYRODES, <i>G.</i>			ROSEANA, <i>Hw.</i> X IV	VIII	
RHEDIANA, <i>L.</i> IX	V VI		SUBROSEANA, <i>Hw.</i> X	VI VII	
CATOPTRIA, <i>G.</i>			IMPLICITANA, <i>H. s.</i> X	VI to VIII	
ALBERSANA, <i>H.</i> X	V VI		CILIANA, <i>H.</i> VII VIII	V VI	
ULICETANA, <i>Hw.</i> VIII	V VII to IX		ANTHEMIDANA, <i>C.</i> VII X	VII VIII	
NIMBANA, <i>Fisch.</i> IV	VI		PALLIDANA, <i>Z.</i>	V VI VII	
JULIANA, <i>C.</i> IX	VI VII		XANTHOSETIA, <i>Ss.</i>		
MICROGRAMMANA, <i>G.</i> IX	VI VII		ZOEGANA, <i>L.</i> IV	V VII VIII	
HYPERICANA, <i>H.</i> V	VI VII		HAMANA, <i>L.</i> V VI	VI VII	
PARVULANA, <i>Wlk.</i> ..	VII		CHROSIS, <i>G.</i>		
MARITIMANA, <i>Dale</i> V VI	VII		TESSERANA, <i>S. V.</i> IX to IV	VII	
CANA, <i>Hw.</i> VII VIII	VI VII VIII		RUTILANA, <i>H.</i> VI	VII VIII	
FULVANA, <i>Ss.</i> , <i>Wlk.</i> IX XI	VI VII		BIFASCIANA, <i>H.</i>	VI	
HOHENWARTHIANA, <i>S. V.</i> VIII IX	VI to VIII		ARGYROLEPIA, <i>Ss.</i>		
SCOPOLIANA, <i>Hw.</i> IX X	VI VII VIII		BAUMANNIANA, <i>S. V.</i>	VI	
COECIMACULANA, <i>H.</i>	VII		SUB-BAUMANNIANA, <i>Wlk.</i>	VII	
ÆMULANA, <i>Schl.</i> ... X	VII VIII		ZEPHYRANA, <i>Tr.</i> V	VI VII	
ASPIDISCANA, <i>H.</i> VIII	V		SCHREIBERSIANA, <i>Fro.</i> I II	VI	

	LARVÆ	IMAGOS		LARVÆ	IMAGOS
BADIANA, <i>H.</i> .....IX	VI VII		SMEATHMANINANA, <i>F.</i> x	VI VII	
CHICANA, <i>Db.</i> .....VII VIII	VI VII		STRAMINEANA, <i>Hw.</i> IX x	VI VII	
ÆNEANA, <i>H.</i> .....I	VI		ALTERNANA, <i>Sz.</i> ..IX x	VI VII	
MUSSEHIANA, <i>Tv.</i> VIII	VI		INOPIANA, <i>Hw.</i> ....IX	VII	
MARITIMANA, <i>G.</i> ..VIII x	V VI		APHELIDÆ		
CONCHYLIS, <i>Tr.</i>			APHELIA, <i>C.</i>		
DIPOLTANA, <i>H.</i> ....II II	VII VIII		OSSEANA, <i>S.</i>	VII VIII	
FRANCILLONANA, <i>F.</i> x to v	V VI		TORTRICODES, <i>G.</i>		
DILUCIDANA, <i>Sz.</i> ..IX x	VI		HYEMANA, <i>H.</i>.....VII?	II III V	

TINEÆ

EPICAPHIIDÆ		VACULELLA, <i>Fisch.</i>	VII
LEMNATOPHILA, <i>Tv.</i>		SCARDIA, <i>Tr.</i>	
PHRYGANELLA, <i>H.</i> ..VI	IX XI	CHORARGELLA, <i>S. V.</i> v	VII VIII
SALICELLA, <i>H.</i> ....X	IV	EMONTUELLA, <i>Z.</i> ..v	V VIII
EXAPATE, <i>Z.</i>		CARPINETELLA, <i>G.</i> ...IV	VI
GELETILLA, <i>L.</i> ....VII	X XI	PICARELLA, <i>L.</i>	VII
DIURNEA, <i>Hw.</i>		ARCUATELLA, <i>Stn.</i> ..v	VI
FAGELLA, <i>S. V.</i> ....IX	III IV	GRANELLA, <i>L.</i>....v	VI VII
PIGRAPHIA, <i>C.</i>		CLOACELLA, <i>Hw.</i> ..IV V	VI to VIII
AVELLANELLA, <i>H.</i> ..	IV	COCHYLIDELLA, <i>Stn.</i>	VI
STEINKELLNERIELLA, <i>S. V.</i> VIII	IV	ARCELLA, <i>F.</i> .....v	VII VIII
PSYCHIDÆ [IX		TINEA, <i>Stn.</i>	
TALÆPORIA, <i>Z.</i>		IMELLA, <i>H.</i> .....XI	V VII X
PUBLICORNELLA, <i>Hw.</i> v	VI	FERRUGINELLA, <i>H.</i>	VII & X
PSEUDO-BOMBYCELLA, <i>O.</i> x IV	VI	RUSTICELLA, <i>H.</i>....II	VII VIII
PSYCHE, <i>Br.</i>		MONACHELLA, <i>H.</i> ..	V VIII
VILLOSELLA, <i>O.</i> ....v	V VI	FULVIMITRELLA, <i>So.</i> v	VI
OPACELLA, <i>H. S.</i> ..IV	V VI	TAPEZELLA, <i>L.</i>....IV VI	VI VII
CALVELLA, <i>O.</i>	V VI	RURICOELLA, <i>Stn.</i>	V & VIII
SALICOELLA, <i>Br.</i> ..	VI	ALBIPUNCTELLA, <i>Hw.</i> IV V	VI VII
BETULINELLA, <i>Z.</i> ...	VI VII	CONFUSEDLLA, <i>H.S.</i>	VII VIII
PULLELLA, <i>Br.</i>	V VI	CAPRIMULGELLA, <i>H.S.</i> v	VII
INTERMEDIELLA, <i>Br.</i>	VI	MISELLA, <i>Z.</i> .....IX x	VII VIII
ROBORICOELLA, <i>Br.</i> v	VI	PELLIONELLA, <i>L.</i> ..IV V VI	VI VII X
CRASSIORELLA, <i>Br.</i>	VI	DUBIELLA, <i>Greg.</i> ..a form of <i>Pellionella</i> ?	
RETICELLA, <i>N.</i>	V	FUSCIPUNCTELLA, <i>Hw.</i> VII VIII	VI VII IX
RADIELLA, <i>C.</i>	VII	FLAVESCENTELLA, <i>Hw.</i> formerly taken near	
SOLENOBIA, <i>Z.</i>		London	
TRIQUETRELLA, <i>H.</i> III IV	IV	PALLESCENTELLA, <i>Stn.</i> v VI	VII X
DOUGLASII, <i>Stn.</i>		GANOMELLA, <i>Tr.</i> ..x v	VI VII
INCONSPICUELLELLA, <i>Stn.</i> III VI X	IV V	MERDELLA, <i>Z.</i> ....X XI	VI VII
CONSPURCATELLA, <i>Z.</i>		BISELIELLA, <i>Hml.</i> ..x vi	VI VII
PSYCHOIDES, <i>Br.</i>		SIMPICIELLA, <i>H.S.</i>	VII
VERHUELLELLA, <i>Hey.</i> IV V VI	VI VII	NIGRIPUNCTELLA, <i>Hw.</i> v	VIII
TINEIDÆ		SEMIFULVELLA, <i>Hw.</i> x v	V VI VII
DIPLODOMA, <i>Z.</i>		BISTRIGELLA, <i>Hw.</i> IX	V
MARGINPUNCTELLA, <i>Sz.</i> IV V	VI	SUBAMMANELLA, <i>Stn.</i>	VII
XYSMATODOMA, <i>Z.</i>		PEROCHRAECELLA, <i>Dbl.</i> IV V	VI VII
MELANELLA, <i>Hw.</i> ..IV V	VI	LAMPRONIA, <i>Z.</i>	
ARGENTIMACULELLA, <i>Stn.</i> VI	VII	QUADRIPUNCTELLA, <i>F.</i> v	VI
PHYGAS, <i>Tr.</i>		LUZELLA, <i>H.</i>	V VI VII
BIRDELLA, <i>C.</i>II V	VII VIII	PRALATELLA, <i>S. V.</i> IX V	VI
BISONTELLA, <i>Lmig.</i>	VII	RUBIELLA, <i>Bjer.</i> ..IV V	VI

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ARUNCELLA, <i>S.</i>	VI		EIDOPHASIA, <i>Ss.</i>		
SEPPELLA, <i>F.</i>	VI		MESSINGIELLA, <i>F.R.</i> iv v	VI	
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SEMIPURPURELLA, <i>Ss.</i> ...viii?	IV		HYPOLEPIA, <i>G.</i>		
UNIMACULELLA, <i>Ztt.</i> VIII?	IV		SEQUELLA, <i>L.</i>v	VII VIII	
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CONTERMINELLA, <i>Z.</i> VI VII	VII VIII IV	DESERTELLA, <i>Ed.</i> ...	V VII VIII		
ANGELICELLA, <i>H.</i> ...VI	VII IX	EXPOLITELLA, <i>Dg.</i>	VI VII		
CARDUELLA, <i>H.</i>V	VII	ACUMINATELLA, <i>Si.</i> VII IX	VI to VIII		
OCELLELLA, <i>F.</i>V VII	VII VIII X	ARTEMISIELLA, <i>Tv.</i> VI	VI to VIII		
YATESIELLA, <i>F.</i> ...VI	VIII IX	VISCARIELLA, <i>Lo.</i> ..V	VI		
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APLANELLA, <i>F.</i>VI	VII IV	ARUNDINETELLA, <i>Z.</i> III IV	VI VII		
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ROTUNDELLA, <i>Dg.</i> ...V	VIII IX	SIMILIS, <i>Dg.</i>	VII VIII		
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LENTIGINOSELLA, <i>Z.</i> V VI	VI VII	INSTABILELLA, <i>Dg.</i> IV V	VII VIII		
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MULINELLA, <i>Ti.</i> ...V	VI VII	SEQUACELLA, <i>Hw.</i> ...V	VI VII		
DIVISELLA, <i>Dg.</i>	VI	ALEELLA, <i>F.</i>IX	V VI		
PALUSTRELLA, <i>Dg.</i>	VII	LEUCATELLA, <i>L.</i> ..V VI	VI VII		
SORORCELLA, <i>H.</i> V	VI VII	ALBICAPITELLA, <i>Z.</i> VI	VII		
CUNEATELLA, <i>Z.</i> ...VII	IX	NANELLA, <i>H.</i>V	VII		
PEZIPELLA, <i>Z.</i>	VI VII	MOUFFETELLA, <i>S.V.</i> IV V	VI		
		DODECELLA, <i>L.</i>V	VII		

LARVÆ	IMAGOS	LARVÆ	IMAGOS
TRIPARELLA, <i>Z.</i> ....VII IX	V VI	USTULELLA, <i>F.</i> ....VIII IX to IV	V
TENEBRELLA, <i>H.</i> ...IX IV	VI VII	APLOTA, <i>Ss.</i>	
LIGULELLA, <i>Z.</i> ....V	VI VII	PALPELLA, <i>Hw.</i> ....V	VIII
VORTICELLA, <i>Z.</i> ....VI	VI VII	NOTHRIS, <i>Stn.</i>	
TENIOLELLA, <i>Tr.</i> ...V VI	VII	VERBASCILLA, <i>S.V.</i> v	VII
SIRCOMELLA, <i>Stn.</i> ..VI?	VI VII	DURDHAMELLA, <i>Stn.</i> VI	VII
IMMACULATELLA, <i>Dg.</i>	VIII	SOPHRONIA, <i>Stu.</i>	
NIGRITELLA, <i>Z.</i>	VI	PARENTHESELLA, <i>L.</i>	VI VII
CORONELLA, <i>Ti.</i> v	VI VII	HUMERELLA, <i>H.</i> ..v	VI
ANTHYLLIDELLA, <i>H.</i> IV	VI VIII	PLEUROTA, <i>Stn.</i>	
ATRELLA, <i>Hw.</i> ....V VI	VII	BICOSTELLA, <i>L.</i> ....x to v	VI VII
BIFRACTELLA, <i>Mann</i> x III	VI VII	HARPELLA, <i>Schl.</i>	
OBLITELLA, <i>Db.</i>	VI	GEOFFROYELLA, <i>L.</i> ...	VI VI
LUCIDELLA, <i>Ss.</i>	VII	BRACTELLA, <i>L.</i> ...II IV	VI
LUTULENTELLA, <i>Z.</i>	VII	HYPERCALLIA, <i>Ss.</i>	
GRACIELLA, <i>Stn.</i> ..	v	CHRISTIERNINELLA, <i>L.</i> v	VI VII
CONFINIS, <i>Stn.</i> ....v	VI	DASYCERA, <i>Stn.</i>	
STRELITZIELLA, <i>H.S.</i>	VI	SULPHURELLA, <i>F.</i> ...v IV	IV to VII
CERALELLA, <i>Ol.</i> ...x III	v VI	OLIVIERELLA, <i>F.</i> ...v?	VI VII
GEMMELLA, <i>L.</i> ....v?	VII VIII	ECOPHORA, <i>Stn.</i>	
NÆVIFERELLA, <i>Z.</i> ...VI X	VI VIII	MINUTELLA, <i>L.</i> ....III	VI
HERMANNELLA, <i>F.</i> VI X	V VIII	FLAVIMACULELLA, <i>Stn.</i> IX	VI to VIII
PICTELLA, <i>Z.</i> .....v	V VIII	TRISIGNELLA, <i>Z.</i> ..	VI VI VII
BRIZELLA, <i>Ti.</i> .....x	V VIII	STIPELLA, <i>Ck.</i> ....IX	VI VII
SUBDECURTELLO, <i>Stn.</i> VI	VI	AUGUSTELLA, <i>H.</i> ...v?	VI
ERICINELLA, <i>Z.</i> ....VI	VII VIII	ALBIMACULELLA, <i>Hw.</i> (var. of Augustella)	
PAUPELLA, <i>Z.</i> .....VII VIII	VIII IX	WOODIELLA, <i>C.</i>	VI
INOPELLA, <i>Z.</i> .....VII	VIII	GRANDELLA, <i>Desr.</i>	V VI
SUBOCELLELLA, <i>Ss.</i> x	VI VII	FORMOSELLA, <i>SV...</i>	VII
INTAMINATELLA, <i>Stn.</i> VIII IX	V VI	LUNARELLA, <i>Hw.</i> ..	VII VIII
OSSELLA, <i>Stn.</i>	VII	LAMBDELLA, <i>Don...</i>	VI VII
TARQUINIELLA, <i>Stn.</i>	VI	SUBAQUILLELLA, <i>Ed.</i>	VI VIII
KNAGGSIELLA, <i>Stn.</i> VI	VII VIII	TINCTELLA, <i>Tr.</i> ....v?	V VI
UMBROSELLA, <i>Z.</i> ..	V V VI VII	SUBOCHERELLA, <i>Dbl.</i>	VI VII
SANGIELLA, <i>Stn.</i> ...v	VI VII	FUSCO-AURELLA, <i>Hw.</i> IV	VIII
PINGUINELLA, <i>Tr.</i> ...v	VII	FLAVIFRONTELLA, <i>H.</i> IX to IV	V VI
LATHYRELLA, <i>Stn.</i> IX	VI	FUSCESCENTELLA, <i>Hw.</i>	VII VIII
PARASIA, D.		PSEUDOSPRETELLA, <i>Stn.</i> x IV	VII VIII
LAPPELLA, <i>L.</i> .....IX X	VI VII	ECOGENIA, <i>G.</i>	
METZNERIELLA, <i>Dg.</i> x II	VI VIII	KINDERMANNIELLA, <i>Z.</i>	VII VIII
CARLINELLA, <i>Dg.</i> ..x II	VI VII	ENDROSIS, <i>Stn.</i>	
NEUROTERELLA, <i>Fisch.</i> x to VI	VII VIII	FENESTRELLA, <i>S.</i> ..I to XII	I to XII
CLEODORA, <i>Stn.</i>		BUTALIS, <i>Tr.</i>	
CYTISELLA, <i>C.</i>	VII	GRANDIPENNELLA, <i>Hw.</i> IV	VI VII
STRIATELLA, <i>S.V.</i> ..VI	VIII	FUSCOÆNEELLA, <i>Hw.</i> IV	VI VII
CHELARIA, <i>Hw.</i>		SENESCENTELLA, <i>Stn.</i> v	VII
CONSCRIPTELLA, <i>H.</i> VI?	VIII IX	FUSCOCUPRELLA, <i>Hw.</i>	VII
ANARSIA, <i>Z.</i>		CICADELLA, <i>Z.</i> ....v	VII
SPARTIELLA, <i>Schl.</i> v VI	VII VIII	VARIELLA, <i>Ss.</i>	VI
GENISTELLA, <i>Stn.</i> ...v	VII	CHENOPODIELLA, <i>H.</i> IV VIII	VI IX
MACROCHILA, <i>Ss.</i>		TORQUATELLA, <i>Luig.</i> VIII IX	VI VII
FASCIELLA, <i>H.</i> ....IX	V	INCONGRUELLO, <i>Stn.</i> IX	III IV
MARGINELLA, <i>F.</i> ...v	VII	PANCALIA, <i>Stn.</i>	
JUNIPERELLA, <i>L.</i> ...v	VII	LEWENHOEKELLA, <i>L.</i>	VI VII

LARVÆ	IMAGOS	LARVÆ	IMAGOS
LATREILLELLA, <i>C.</i> ...		PRÆCOCELLA, <i>Z.</i> ...	V
GLYPHIPTERYGIDÆ		AURULENTELLA, <i>Z.</i> IV VIII	VII VIII
ACROLEPIA, <i>C.</i>		CEDESTIS, <i>Stn.</i>	
PERLEPIDELLA, <i>Stn.</i>	VI	FARINATELLA, <i>D.</i> ... III IV & VI	VI VII
GRANITELLA, <i>Tr.</i> ... VI VII	VIII	GYSSELINELLA, <i>D.</i> ... III	VI VII
AUTUMNITELLA, <i>C.</i> VII X	VIII IV	OCNEROSTOMA, <i>Z.</i>	
BETULELLA, <i>C.</i>	VIII X	PINARIELLA, <i>Z.</i> ... IV & VI	IV VI & VIII
MARCIDELLA, <i>C.</i> ...		ZELLERIA, <i>Stn.</i>	
ROSLERSTAMMIA, <i>Stn.</i>		HEPARIELLA, <i>M.</i> ...	VIII IV
ERXLEBENELLA, <i>F.</i> IV & VII	V VI & VIII IX	INSIGNIPENNELLA, <i>Stn.</i>	VIII IV
PRONUBELLA, <i>S. V.</i>	V	FASCIAFENNELLA, <i>Lo.</i>	IX X
GLYPHIPTERYX, <i>Ss.</i>		SAXIFRAGÆ, <i>G.</i> ... V VI	VII
FUSCOVIRIDELLA, <i>Hw.</i>	IV V VI	GRACILLARIIDÆ	
THRASONELLA, <i>S.</i> ... V?	VI VII	GRACILLARIA, <i>Z.</i>	
CLADIELLA, <i>Stn.</i>	VI VII	ALCHIMIELLA, <i>S.</i> ... VII IX	V VI VIII
HAWORTHELLA, <i>Ss.</i> IV VI	V VII	STIGMATELLA, <i>F.</i> ... VI VIII IX	VII & VIII IV
EQUITELLA, <i>S.</i> V VI	VI to VIII	STRAMINEELLA, <i>Stn.</i>	VIII IV
SCHENICOELLA, <i>Stn.</i> IV V	V	HEMIDACTYLELLA, <i>H.</i> VII VIII	IX
OCULATELLA, <i>Z.</i>	VI	FALCONIPENNELLA, <i>H.</i> VIII	IX
FISCHERIELLA, <i>Z.</i> ... VII	V VIII	SEMITASIELLA, <i>Hw.</i> VII	IX
ÆCHMIA, <i>Stn.</i>		POPULETELLE, <i>Z.</i> ... VII	IX IV
DENTELLA, <i>Stn.</i> VII	V VI	ELONGELLA, <i>L.</i> ... V VII	V VI IX
PERITTIA, <i>Stn.</i>		TRINGIPENNELLA, <i>Z.</i> III IV & VI VII	V VIII
OBSCUREPUNCTELLA, <i>Stn.</i> VII	V	SYRINGELLA, <i>F.</i> ... VI IX	V VIII
TINAGMA, <i>D.</i>		OMISSELLA, <i>Dg.</i> ... VII	V VIII
SERICIELLA, <i>Hw.</i> ... VIII	IV V	PHASIANIPENNELLA, <i>H.</i> VIII IX	IX IV
STANNEELLA, <i>Fisch.</i> IX	VI	AUROGUTTELLA, <i>Ss.</i> IV VI IX	V VIII
RESPLENELLA, <i>Dg.</i> VII IX	VI	ONONIELLA, <i>D.</i> ... IV V	VII VIII IX
DOUGLASIA, <i>Stn.</i>		IMPERIALELLA, <i>M.</i> VIII IX	V
OCNEROSTOMELLA, <i>Stn.</i> IV	VII	HOFFMANNIELLA, <i>Schleich</i>	
ARGYRESTHIIDÆ		KOLARIELLA, <i>Z.</i> ... VI & IX X	V & VII
ARGYRESTHIA, <i>Stn.</i>		CORISCUM, <i>Z.</i>	
EPHIPPELLA, <i>F.</i> ... V	VI VII	BROGANIARTELLA, <i>F.</i> VI to VIII	VII IX
NITIDELLA, <i>F.</i> ... V	V VIII	CICULIPENNELLA, <i>H.</i> VIII	VIII IX IV
PURPURASCENTELLA? <i>Stn.</i>		CITRINELLA, <i>Fisch.</i>	IX X IV
SEMITESTACELLA, <i>C.</i>	VIII	ORNIX, <i>Z.</i>	
SPINIELLA, <i>Z.</i> ... V VI	VIII	VELLANELLA, <i>Stn.</i> VII IX X	V VI VIII
ALBISTRIELLA, <i>Hw.</i> V	VII	DEVONIELLA, <i>Stn.</i> ...	V
CONJUGELLA, <i>Z.</i> ... VIII	VI VII	ANGLICELLA, <i>Stn.</i> ... VII IX	IV V VIII
SEMIFUSCELLA, <i>Hw.</i> V	VII VIII	BETULÆMORELLA, <i>Dbl.</i> VII IX X	V VI VIII
ÆRARIELLA, <i>Stn.</i> ...	VI	SCUTULATELLA, <i>Stn.</i> IX?	VI
(possibly a var. of Conjungella)		TORQUILELLA, <i>Stn.</i> VII IX	V to VIII
MENDICELLA, <i>Hw.</i> V	VI VII	SCOTICELLA, <i>Stn.</i> ... IX	V VI
GLAUCINELLA, <i>Z.</i> ... III IV	VI VII	LOGANELLA, <i>Stn.</i> ... IX	V VI
RETINELLA, <i>Z.</i> ... V	VI VII	GUTTELLA, <i>Hw.</i> ... VIII IX	V VI
ABDOMINELLA, <i>Z.</i> ... IV	VII	COLEOPHORIDÆ	
DILECTELLA, <i>Z.</i> ... V	VI	GONIODEMA, <i>Z.</i>	
ANDEREGBIELLA, <i>Fisch.</i> V	VII VI I	ATRIPLOCIVORELLA, <i>Dbl.</i> IX to V	VIII
CURVELLA, <i>L.</i> ... V	VI VII	COLEOPHORA, <i>Z.</i>	
SORBIELLA, <i>Tr.</i> ... VI	VII	FABRICIELLA, <i>Vill.</i>	VI VII
PYGMÆELLA, <i>H.</i> ... IV V	VI VII	DEAURATELLA, <i>Lnig.</i>	VII
GEDARTELLA, <i>L.</i> ... II IV	VI VII	ALCYONIPENNELLA, <i>Kol.</i> V VI	VII VIII
BROCHELLA, <i>H.</i> ... III IV	VI VII	FRISCHELLA, <i>L.</i> ...	VII
ARCEUTHINELLA, <i>Z.</i> IV V	V VI	PAPIPENNELLA, <i>Fisch.</i> IX X V	I

LARVÆ	IMAGOS	LARVÆ	IMAGOS
WOCKERELLA, <i>Z.</i> ... v	VI VII	WILKINSONELLA, <i>Sc.</i> VIII IX	VI
OCHEEELLA, <i>Hw.</i> ... v	VII VIII	ELACHISTIDÆ	
SALICORNELLA, (<i>N.S.</i>) x to v	VII VIII	BEDELLIA, <i>Stn.</i>	
BINOTAPENNELLA, <i>Fisch.</i> v	VIII	SOMNULENTELLA, <i>Z.</i> VIII IX	VIII X
LIXELLA, <i>Z.</i> IV	VII	STRATHMOPODA, <i>Z.</i>	
VIBICELLA, <i>H.</i> VI	VII	COSMOPTERYX, <i>Stn.</i>	
CONSPICUELLA, <i>M.</i> ... VI	VI VII	DRURIELLA, <i>Z.</i> VIII IX	VII
PYRRHULIPENNELLA, <i>Ti.</i> x iv v vi	VI VII	ORICHALCELLO, <i>Stn.</i> VIII IX	V & VII
ALBICOSTELLA, <i>Hw.</i> VIII	VI VII	LIENIGIELLA, <i>Z.</i> IX	VI VII
VULNERARIELLA, <i>Z.</i>	VI VII	BATRACHEDRA, <i>Stn.</i>	
ANATIPENNELLA, <i>H.</i> v VI	VI to VIII	PRAEGUSTELLA, <i>Hw.</i> VI	VII VIII
PALLIATELLA, <i>Z.</i> .. v	VI VII	PINICOELLA, <i>Z.</i>	VI VII
IBIPENNELLA, <i>Hey.</i> v	VI VII	OINOPHILA, <i>St.</i>	
CURRICUPENNELLA, <i>Fisch.</i> v	VI VII	V-FLAVELLA, <i>Hw.</i> ..v VI	VII VIII
NIVEICOSTELLA, <i>Fisch.</i> VI	VI VII	CHAULIODUS, <i>Tr.</i>	
DISCORDELLA, <i>Z.</i> ..x to v	VI to VIII	INSECURELLA, <i>Stn.</i>	VII VIII
GENISTÆCOELLA, <i>Dbl.</i> x VI	VI VII	ILLIGERELLA, <i>H.</i> v VI	VII
SATURATELLA, <i>Stn.</i> IX VI	VII	CHÆROPHYLLELLA, <i>Go.</i> vi IX	VII VIII
ONOSMELLA, <i>Z.</i> ... v VI	VII	DAUCELLA, <i>Pey.</i> IX?	X XI
INFATELLA, <i>Stn.</i> .. VIII IX	VII	LAVERNA, <i>C.</i>	
HERINELLA, <i>Stn.</i> ... IX	VI VII	PAUDICOLELLA, <i>Dbl.</i> II to V	VI to VIII
TROGLODYTELLA, <i>Stn.</i> v VI VII	VII VIII	LACTEELLA, <i>Ss.</i> v	VI to VIII
LINEOLELLA, <i>Hw.</i> ... III V	VI VII	MISCILLA, <i>S. V.</i> IV to VI	VI to VIII
MURINIPENNELLA, <i>Fisch.</i> v VI	V VII	CONTURBATELLA, <i>H.</i> v VI	VI VII
SQUAMOSELLA, <i>Stn.</i>	VIII	RASCHKIELLA, <i>Fisch.</i> v VII	VI VIII
CÆSITITIELLA, <i>Z.</i> IX V	VI VII	STEPHENSIELLA, <i>Stn.</i>	VII VIII
ANNULATELLA, <i>Tengs.</i> IX X	VII VIII	EPILOBIELLA, <i>Schig.</i> vi VII	VIII to v
SALINELLA, <i>Stn.</i> ... x V	VI VIII	OCHRACEELLA, <i>C.</i> ... v	VII VIII
CACUMINATELLA, <i>Dbl.</i> x	VII VIII	PHRAMGITELLA, <i>Ben.</i> v	VII
ARGENTULELLA, <i>Z.</i> IX X	VII	DECORELLA, <i>Ss.</i> VI VII	VIII IX to IV
VIRGAURELLA, <i>Stn.</i> IX X	V VII VIII	SUBISTRIGELLA, <i>Hw.</i> VII VIII	VIII IX to v
HEMEROBIELLA, <i>Z.</i> v	VII	ATRA, <i>Hw.</i> IX to II III	VI VII
JUNCICOELLA, <i>Stn.</i> x V	VII	RHAMNIELLA, <i>Z.</i> v	VII
LARICELLA, <i>H.</i> IX V	VI VII	VINOLENTELLA, <i>H. S.</i>	
ALBITARSELLA, <i>Z.</i> .. XI V VI	VI VII	CHRYSOCLISTA, <i>Stn.</i>	
NIGRICELLA, <i>Ss.</i> v VI	VI VII	LINNEELLA, <i>Stn.</i> .. XI to IV	VII VIII
FUSCOCUPRELLA, <i>Z.</i> IX to V	VI	BIMACULELLA, <i>Hw.</i>	VI VII
ORBITELLA, <i>Z.</i>	VI VII	SCHRANKELLA, <i>H.</i> IV VII	VI VIII
GYPHIPENNELLA, <i>Bou.</i> IX V VI	V VIII	FLAVICAPITELLA, <i>Hw.</i> IX to III	IV V VI
SICCIFOLIELLA, <i>Stn.</i> VII VIII	VI	HELIODINES, <i>Stn.</i>	
VITISELLA, <i>Gregs.</i> .. XI IV	VI VII	RESELLA, <i>L.</i> VI	VII VIII
VIMINETELLA, <i>Z.</i> .. IX V VI	V VII	ANYBIA, <i>Stn.</i>	
OLIVACEELLA, <i>Stn.</i> V	VI	LANGIELLA, <i>H.</i> VII	VIII
SOLITARIELLA, <i>Z.</i> .. x V	VI VII	ASYCHNA, <i>Stn.</i>	
LUTIPENELLA, <i>Z.</i> .. v VI	VI VII	PROFUGELLA, <i>Z.</i> IX	VII
BADIOPENNELLA, <i>Fisch.</i> V	VI VII	MODESTELLA, <i>D.</i> .. VI	V
ARTEMISICOELLA, <i>Br.</i> VIII to V	VII	ÆRATELLA, <i>Z.</i> x IV	VI VII
GRAMINICOELLA, <i>Stn.</i> v?	V	TERMINELLA, <i>Dale.</i> VIII IX	VI
LIMOSIPENNELLA, <i>Fisch.</i> V VII	V VI VII	CHRYSOCORYS, C.	
CHALCOGRAMMELLA, <i>Z.</i> v	VI VII	FESTALIELLA, <i>H.</i> ..vII	V VI VIII
MELIOTELLA, <i>Sc.</i> .. VIII to X	VII	ANTISPILA, <i>H. S.</i>	
ARDEÆPENNELLA, <i>Sc.</i> VI VII	VII	PFEIFERELLA, <i>F.</i> ..VI VII	V
ARTEMISIELLA, <i>Sc.</i> VI	VII	TREITSCHKIELLA, <i>Fisch.</i> VIII IX VI	
BICOLORELLA, <i>Sc.</i> .. v?			

	LARVÆ	IMAGOS		LARVÆ	IMAGOS
STEPHENSSIA, <i>Stn.</i>			AMYOTELLA, <i>D.</i>VII X	V VI VIII	
BRUNNICHELLA, <i>L.</i> IV VII	V VI VIII		LANTANELLA, <i>Schlg.</i> VII IX	V VIII	
ELACHISTA, <i>Stn.</i>			TRIGUTTELLA, <i>Stn.</i> V VI IX X	V VIII	
GLEICHENELLA, <i>F.</i> ...IV V	VI VII		QUINQUEGUTTELLA, <i>Stn.</i> V VI IX X	V VI VIII	
MAGNIPICELLA, <i>Tengs.</i> IV V	VII		NIGRESCENTELLA, <i>Lo.</i>	V	
APICIPUNCTELLA, <i>Stn.</i> X to IV	VI VII		(considered a form of Bremiella)		
ALBIPRONTELLA, <i>H.</i> IV V	VI		IRRADIELLA, <i>Sc.</i>VII IX	V VI VIII	
HOLDENELLA, <i>Ed.</i> ..	VI		BREMIELLA, <i>Z.</i>VII IX X	IV V VIII	
ATRICOMELLA, <i>Stn.</i> V VI	VI		INSIGNITELLA, <i>Z.</i> ...X	V VI	
LUTICOMELLA, <i>Z.</i> ...IV V	VI to VIII		LAUTELLA, <i>Z.</i>VII IX X	V VI VIII	
FLAVICOMELLA, <i>Stn.</i>	VII		VACCINIELLA, <i>Sc.</i> ...VII IX X	V VI VIII	
POELLA, <i>Dg.</i>IV VII	V VIII		CAVELLA, <i>Z.</i>VII IX	V VI VIII	
KILMUNELLA, <i>Stn.</i> ...VII	V VII VIII		POMIFOLIELLA, <i>Z.</i> ...VII IX	V VI VIII	
ALPINELLA? <i>Ed.</i>			CORYELLA, <i>Ni.</i>VII IX	V VI VIII	
CINEREOPUNCTELLA, <i>Hw.</i> IX V	V VI		SPINICOELLA, <i>Z.</i> ...VII IX	V VI VIII	
TRAPEZIELLA, <i>Stn.</i> X to V	V VI		AGINELLA, <i>M.</i>VII IX	V VI VIII	
STABILELLA, <i>Stn.</i> ..	VI VII		TORMINELLA, <i>Frr.</i> ...VII IX	V VIII	
GREGSONELLA, <i>Stn.</i> IV	V VI VII		SALICICOELLA, <i>Si.</i> ...VII IX	V VIII	
NIGRELLA, <i>H.</i>IV VII	V VII VIII		VIMINETELLA, <i>Stn.</i> VII IX	V VIII	
SCBNIGRELLA, <i>Dg.</i> ...IV VII	V VI VIII		CARPINICOELLA, <i>Stn.</i> VII IX	V VI VIII	
PERPLEXELLA, <i>Stn.</i> ...IV V	VI VII		ULMIFOLIELLA, <i>H.</i> ...VII IX	V VI VIII	
HUMILIELLA, <i>Z.</i>	VI VII		SPINOLELLA, <i>D.</i>VII IX	V to VIII	
CONSORTELLA, <i>Stn.</i>	III		QUERCIFOLIELLA, <i>Fisch.</i> VII IX	V to VIII	
BEDELLELLA, <i>Si.</i> ...IV VII	V VIII		MESSANIELLA, <i>Z.</i> ...IV VII X	V VIII XI	
SUBOBSCURELLA, <i>Db.</i> III VII	V VI VII		CORYLIFOLIELLA, <i>Hw.</i> VII IX	V VIII	
PALUDUM, <i>Frr.</i>IV	VII		CALEDONIELLA, <i>Stn.</i> VII IX	V VIII	
ZONARIELLA, <i>Tengs.</i> IV VII	V VI VIII		VIMINIELLA, <i>Si.</i>VII IX	V VI VIII	
GANGABELLA, <i>Fisch.</i> XI to IV	V VI		SCOPARIELLA, <i>Ti.</i> ..	VI VII	
TENIATELLA, <i>Stn.</i> ...IX V	V VI		ULICOLELLA, <i>Va.</i> ...IX	VI VII	
CINGILELLA, <i>Fisch.</i>	VI VII		ALNIFOLIELLA, <i>H.</i> ...VII IX	IV V VII VIII	
ORLIQUELLA, <i>Ed.</i> ..	V VI		HEGERIELLA, <i>Z.</i> ...VII IX	V VI VIII	
MEGERLELLA, <i>Z.</i>IX VI	V VI VIII		CRAMERELLA, <i>F.</i>VII IX	V VIII	
ADSCITELLA, <i>Stn.</i> ...V VI	VI VII		TENELLA, <i>Z.</i>VII IX	V VI VIII	
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Corked Store Boxes, best make, 2/6, 3/6, 4/-, 5/-, & 6/-
Ditto, covered in Green Cloth, Book Pattern, 16 by 11, 8/-
Tin Y, 6d.; Brass Y, 1/-, for Cane Nets.
Breeding Cage, 2/6; with Two Compartments, 5/-
The New Glass Killing Bottle, charged ready for use, 1/-, 1/3, and 1/6
The New Sugaring Lantern, burns Benzoline, 5/-, 6/-, and 10/6
Entomological Pins, four sizes, mixed, 1/- per oz. (Postage 1½d.)
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A large assortment of British Insects kept in stock.

Dealer in British and Foreign Bird Skins.

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